



Borough of Macclesfield.

REPORT

ON THE

Health of Macclesfield,

FOR THE YEAR 1913.

BY

J. HEDLEY MARSH,

M.R.C.S., L.R.C.P. (London),

Fellow of the Royal Institute of Public Health, &c.

MEDICAL OFFICER OF HEALTH,

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BOROUGH OF MACCLESFIELD.

The following 18 Members of the Town Council, constitute the Health Committee :—

Chairman :—	Mr. Alderman Pickford.
The Mayor (Mr. Alderman Adshead).	
Mr. Alderman Bailey.	
„ Bradley.	
„ Brocklehurst, M.P.	
„ Crew.	
„ Oldfield.	
Mr. Councillor Beard.	
„ W. R. Brown.	
„ Cooper.	
„ Cotterill.	
„ Eaton.	
„ J. G. Frost.	
„ Hyde.	
„ Knight.	
„ Newbald.	
„ Swindells.	
„ Wardle.	
„ Webster.	

There are three Sub-Committees :—

Sewage Works :	Chairman, Mr. Alderman Oldfield.
Hospitals :	„ Mr. Alderman Bailey.
Cleansing :	„ Mr. Alderman Bradley.

The Rateable value of the Borough is £120,082. 10s. 0d.

The Poor Rate 1913-14 is Five shillings and eightpence in the Pound.

District Rate 1913-14 is Two shillings and tenpence in the Pound.

Total Rates Eight shillings and tenpence in the Pound.

A Penny in the Pound on the District Rate produces about £400.

ANNUAL REPORT

OF THE

Medical Officer of Health,

FOR THE YEAR ENDING DECEMBER 31st, 1913.

* * * * *

To the Mayor and Members of the Macclesfield
Town Council.

MR. MAYOR AND GENTLEMEN,

I have the honour to submit for your consideration my Fifteenth Annual Report on the Health and Sanitary Administration of the Borough of Macclesfield.

The centre of the town which contains the Market Place, with the Town Hall and Parish Church, occupies an eminence above the River Bollin. Around this nucleus the town has grown in all directions filling up the valley of the Bollin and ascending the slopes of the adjacent hills. Since 1787 when silk manufacture was introduced its fortunes have been mainly identified with that industry.

HEIGHT OF THE TOWN.

The elevation of the town above sea level is between 400 and 500 feet. The rain gauge in the West Park is 501 feet above sea level.

GEOLOGY OF THE TOWN.

THE SOIL—

The soil is variable to the West and North-west, sand and gravel lying on boulder clay alternate, the sand predominating. In the centre of the town there are two to five feet of coarse gravel on clay. On the Easterly side there is brick clay on sand and gravel, and to the South, boulder clay.

THE NATURAL DRAINAGE.—RIVER AND WATER COURSES—

The natural drainage of the town runs roughly East and West, and is effected by the River Bollin which has as tributaries the Day Brook, draining the easterly, or Hurdsfield side, and the Dams Brook, draining the westerly side or Broken Cross area.

RAINFALL IN MACCLESFIELD.

During the last three months of 1913, there were 29 days without rain, against 40 days in October, November and December, 1912, without rain. In the last three months of 1913, 7.31 inches of rain fell, against 9.83 inches in 1912. The total for the three months 7.31 inches is 2.52 below the average of the past 60 years, and the lowest rainfall for those months recorded in Macclesfield in any one year.

Below is the rainfall of each month in 1913, and the averages of the past sixty years; from which it will be seen that in the first six months there was an excess of 3.76 inches above the average, which more than makes good the shortage at the end of the year.

	Inches of Rain.	Average for 60 years.
January	3.39	2.60
February	1.27	2.16
March	4.41	2.62
April	3.84	2.10
May	2.97	2.32
June.....	2.71	3.03
July	1.56	3.36
August.....	2.24	3.88
September	1.30	3.10
October	2.12	3.77
November	3.17	2.91
December	2.02	3.17

POPULATION.

The following figures give the revised returns of the 1911 Census :—

Total Population of the Borough	... ... ...
	34,797

The population is made up as follows :—

Males	... ... ... ... ... ... ... ...
	15,608
Females	... ... ... ... ... ... ... ...
	19,189

The areas on which the population was taken were the six Municipal Wards and the following are the returns :—

Ward.	Families or Separate Occupiers.	Persons.	Males.	Females.
No. 1 Hurdsfield	... 1,595	... 6,192	... 2,700	... 3,492
,, 2 North-west	... 1,072	... 5,999	... 2,865	... 3,134
,, 3 South-west	... 2,192	... 8,347	... 3,556	... 4,791
,, 4 Sutton	... 1,589	... 6,144	... 2,706	... 3,438
,, 5 South-east	... 1,160	... 4,843	... 2,323	... 2,520
,, 6 North-east	... 806	... 3,272	... 1,458	... 1,814
Totals	... 8,414	... 34,797	... 15,608	... 19,189

In Ward 2, the Parkside Asylum and Workhouse are situated, and these contain a certain number of persons who do not belong to the Borough, but have come here from other towns for treatment, &c. These figures must be deducted from the total population of the Borough and from the population of No. 2 Ward.

THE ASYLM population was 1,302—621 males, and 681 females, 144 of these had resided in the Borough prior to their admission to the Asylum.

Deducting 1,158 from the gross population of 34,797, leaves us with a net population for the Borough of 33,639 persons, and a net population for Ward 2 of 4,841, instead of 5,999.

The average number of persons per house inhabited, was 3.9 for the whole Borough.

Ward.	No. of Inhabited houses.	No. of Uninhabited houses.	No. of persons per house.
No. 1	1,595	57	3.8
,, 2	1,095	97	4.0
,, 3	2,192	104	3.3
,, 4	1,588	59	3.9
,, 5	1,160	74	4.1
,, 6	806	79	4.0

PRINCIPAL VITAL STATISTICS FOR 1913.

Compared with the previous year.

Population (Census 1911)	34,797
*Corrected Population	33,693

BIRTHS.

701 (less 5 transferred away)	696 last year	678
Birth-rate per 1,000 population	20.6 ,,"	20.1
DEATHS	514 last year	536
Actual death-rate per 1,000 population	15.2 ,,"	15.9
Corrected death-rate	14.5 ,,"	15.1
Excess of births over deaths	182 ,,"	142
Infantile Mortality rate	113 ,,"	115

(*) The corrected population is the gross population less the inhabitants of our large public Institutions, who do not belong to the Borough.

(x) The factor for correction is .9558.

For purposes of comparison, I append the following Table, shewing the Birth-rates and Death-rates in England and Wales during 1913 :—

	Annual rate per 1,000 living.			Deaths under 1 year to 1,000 Births.	
	Births.	Deaths ...			
		Crude.	Standardised.		
England and Wales	23.9	... 13.7	... 13.4	... 109	
96 great towns, including London ...	25.1	... 14.3	... 14.7	... 116	
145 smaller towns ...	23.9	... 12.8	... 13.0	... 112	
England and Wales less the 241 towns	22.2	... 13.1	... 12.1	... 96	
London	24.8	... 14.2	... 14.2	... 104	

The standardised death-rates (formerly called corrected death-rates) are the rates which would have been recorded had the sex and age constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901. A description of the method of standardising these death-rates is to be found in the Registrar-General's Annual Report for 1911, p. xxix.

BIRTHS AND BIRTH-RATES.

Number of births registered of inhabitants of the Borough		696
Number of births registered of persons not belonging to the Borough		5
Total Number of births registered		701
Birth-rate per 1,000 of population		20.6
... Boys ...	... Girls ...	
Legitimate. Illegitimate.	Legitimate. Illegitimate.	
337	25	313
		26

The following table shows the birth-rates from the year 1874 with quinquennial averages for the last 20 years.

Years.	Birth-rate.	Years.	Birth-rate.	Years.	Birth-rate.
1874	33.5	1887	28.2	1902	21.4
1875	35.2	1888	25.8	1903	25.1
1876	35.2	1889	26.2	1904	22.6
1877	34.3	1890	27.0	1905	21.6
1878	31.9	1891	28.0	1906	22.0
1879	34.7	1892	27.4	1907	25.4
1880	31.4	1893	25.0	1908	21.2
1881	31.4	1894	28.2	1909	20.8
1882	32.1	1895	25.4	1910	19.8
1883	28.6	1896	26.8	1911	20.8
1884	31.4	1897	27.1	1912	20.1
1885	29.8	1898	26.4	1913	20.6
1886	28.9	1899	24.6		
		1900	23.6		
		1901	22.2		

The following table shows the births distributed to the several Municipal Wards :—

Ward	I.	II.	III.	IV.	V.	VI.
Number of Births	116	81	183	120	141	60
Birth-rate per 1,000 of population	18.7	16.7	21.9	19.5	29.1	18.4

ILLEGITIMATE, BIRTH-RATE.

Fifty-one births were registered as illegitimate—25 boys and 26 girls—from these figures must be deducted four births, the mothers not belonging to the Borough—1 boy and 3 girls—this leaves us with a total of 47 illegitimate births and corresponds to an illegitimate birth-rate of 6.3 per cent. of births registered compared with 6.4 last year.

DEATHS.

628 deaths were registered in the Borough during the year.

122 were of persons who did not belong to the Borough and must be deducted.

Six deaths were transferred to the district from outside.

This leaves us with a nett total of 514 deaths of persons belonging to the Borough, and corresponds to an actual death-rate of 15.2 per 1,000 inhabitants.

In order that this number may be more accurately comparable with other death-rates, it is necessary to multiply it by the figures 0.9558, this reduces the death-rate to 14.5 per 1,000 inhabitants and is the standardised or corrected death-rate for the Borough of Macclesfield for the year 1913.

We have thus three death-rates :—

The Crude death-rate	18.0	per 1,000.
The actual death-rate	15.2	"
The Standardised or Corrected	14.5	"

The necessity for these corrections is particularly great because a large number of people die in one or other of our public Institutions who do not belong to this town and also we have an abnormally large number of aged people in the Borough which tends to further swell our death-rate.

The following table shows the death-rates in the non-county Boroughs of Cheshire during 1913.

Congleton	16.1	per 1,000 living.
Crewe	11.6	"
Dukinfield	15.5	"
Hyde	15.3	"
Stalybridge	18.0	"
Macclesfield	14.5	"

DEATH RATES SINCE THE YEAR 1874, WITH FIVE
YEARLY AVERAGES.

Years.	Death-rate.	Years.	Death-rate.	Years.	Death-rate.
1874	26.6	1887	23.8	1902	15.1
1875	25.0	1888	18.2	1903	17.3
1876	28.1	1889	21.2	1904	20.1
1877	20.2	1890	21.9	1905	18.1
1878	23.8	1891	20.8	1906	17.0
1879	23.2	1892	25.1	1907	16.8
1880	21.7	1893	20.6	1908	16.6
1881	23.6	1894	17.7	1909	15.7
1882	23.0	1895	22.5	1910	14.2
1883	23.6	1896	20.0	1911	16.5
1884	22.0	1897	20.3	1912	15.1
1885	20.4	1898	18.5	1913	14.5
1886	20.0	1899	20.4		Standar- dised.
		1900	19.6		
		1901	18.5		

PRINCIPAL DEATH-RATES FOR THE LAST FIVE YEARS.

Year.	1913.	1912.	1911.	1910.	1909.	A'age.
Zymotic death-rate	1.0	0.8	1.5	0.5	0.4	0.8
Phthisis	0.8	1.1	1.4	1.1	1.2	1.1
Respiratory	1.6	2.0	1.9	1.8	2.6	1.9
Infantile	113	115	151	103	110	118
Cancer	1.2	0.9	1.3	0.8	1.2	1.0

Most of these rates show an improvement except the rates from the Zymotic diseases and cancer. The increase in Zymotic death-rate is largely due to the greater prevalence of diarrhoeal diseases during the third quarter of the year, the deaths therefrom reaching the number nine instead of three as during the previous year. The diminution in the mortality from Phthisis is most satisfactory and suggests that the various remedial and preventative agencies which have been at work are at length making some impression on this disease.

The diminution in the Infantile mortality rate, although not very great, is quite satisfactory, but until the figure has been reduced well below 100, it can be assumed that the total of preventable mortality has been reached.

The cancer death-rate is necessarily always high in this town, because we have so large a proportion of elderly people who have reached the age period when they become naturally more susceptible to this disease.

The respiratory death-rate includes deaths from Bronchitis, Pneumonia, Broncho-pneumonia, &c., and this also shows a decline not only on last year's record, but also on the previous five years average. It is perhaps not an unreasonable surmise that the effects of the National Health Insurance Act may be credited with this marked improvement. Coughs and colds which are usually the starting points of serious respiratory troubles have probably been more readily submitted to medical care and serious lung diseases with their attendant high mortality rates nipped in the bud.

The greater ease with which medical help can be now obtained and the large and varied assortment of remedies placed at the disposal of the doctors must all help in reducing the sickness rates generally and the respiratory death-rate in particular.

DEATHS IN MACCLESFIELD.
Year ending December 31st, 1913.

Cause of Death.	Under				15-	25-	45-	Over	T'tl.
	1	1-2	2-5	5-15	25	45	65	65+	
Enteric Fever .....	...	...	...	...	1	...	...	...	1
Measles	1	...	...	...	...	...	...	...	1
Scarlet Fever	2	1	3	3	...	...	...	...	9
Whooping Cough ...	3	4	...	...	...	...	...	...	7
Diphtheria & Croup	1	1	1	1	...	...	...	...	4
Diarrhoea & Enteritis	8	...	1	...	1	1	...	2	13
Influenza .....	...	...	...	...	...	...	1	1	2
Pulmonary Tuberculosis...	...	...	2	3	13	11	1	1	30
Tubercular Meningitis	2	...	1	1	1	...	...	...	5
Other Tuberculous Diseases.....	1	1	2	1	1	3	1	...	10
Rheumatic Fever ...	1	...	...	...	...	...	...	...	1
Cancer (Malignant Disease) .....	...	...	...	...	1	8	22	11	42
Organic Heart Disease	2	...	...	1	3	8	40	29	83
Bronchitis	2	...	...	...	...	1	11	16	30
Broncho-pneumonia...	4	3	4	...	...	...	1	1	13
Pneumonia (all other forms) .....	...	1	...	2	3	2	2	3	13
Other Respiratory Diseases.....	...	...	...	...	...	...	1	...	1
Appendicitis .....	...	...	1	1	...	...	1	...	3
Alcoholism .....	...	...	...	...	...	1	1	...	2
Cirrhosis of Liver .....	...	...	...	...	2	5	...	...	7
Nephritis & Bright's Disease .....	...	...	...	...	2	1	8	8	19
Other Acc. & Dis. of Pregnancy and Par- turition	1	...	...	...	...	3	1	...	5
Congenital Debility Malformation and Premature Birth ...	21	...	...	...	...	...	...	...	21
Violent Deaths (includ- ing Suicides)	1	...	1	1	1	2	2	2	8
Other Defined Diseases	24	5	2	4	4	8	34	99	180
Ill-defined or unknown Diseases.....	6	2	...	...	...	...	...	...	8
Totals	79	19	15	17	21	52	142	173	518

DEATHS IN MACCLESFIELD.

Year ending December 31st, 1912.

Cause of Death.	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65	Over T'tl.
Enteric Fever .....	...	...	...	1	1	...	...	...	2
Measles	2	3	1	...	...	...	...	...	6
Scarlet Fever .....	...	...	2	4	...	1	...	...	7
Whooping Cough .....	...	1	...	...	...	...	...	...	1
Diphtheria & Croup...	...	1	1	...	...	...	...	...	2
Influenza .....	...	...	...	...	...	...	...	3	3
Erysipelas .....	...	...	...	...	...	...	1	...	1
Phthisis .....	...	...	3	9	16	10	1	39	
Tubercular Mening- itis	2	...	5	...	...	...	...	...	7
Other Tuberculous Diseases.....	1	1	1	...	1	1	...	1	6
Rheumatic Fever ...	...	...	...	...	1	...	...	...	1
Cancer .....	...	...	...	...	...	3	15	15	33
Bronchitis	7	1	...	...	...	...	7	23	38
Broncho-pneumonia...	7	4	...	...	...	1	...	2	14
Pneumonia, all other forms .....	...	1	...	...	...	1	6	6	14
Other Respiratory Diseases.....	...	...	...	...	...	...	4	...	4
Diarrhoea & Enteritis	10	...	...	...	...	...	...	2	12
Appendicitis & Typhlitis...	...	...	...	1	1	...	...	...	2
Cirrhosis of Liver.....	...	...	...	...	2	3	...	...	5
Nephritis & Bright's Disease .....	...	...	...	...	4	6	17	10	37
Other Acc. and Dis. of Pregnancy & Par- turition .....	...	...	...	...	...	2	...	...	2
Premature Birth	31	1	...	...	...	...	...	...	32
Violent deaths (exclu- ding suicides)	2	...	1	1	1	...	3	3	11
Suicides .....	...	...	...	...	...	...	1	1	2
Other defined diseases	7	2	5	1	2	18	56	150	241
Ill-defined or unknown diseases	8	2	...	...	2	1	...	...	13
Totals	77	17	16	10	22	53	124	217	536

DISTRICT MORTALITY.

The following tables set out the principal death-rates in the Municipal Wards compared with the previous year.

Year 1913.

Ward	Population	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infantile Mortality rate.
No. 1	6,192	18.4	13.5	0.8	86
„ 2	4,841	16.7	16.1	0.6	98
	(less Asylum)				
„ 3	8,347	21.9	16.1	1.4	71
„ 4	6,144	19.5	15.1	0.0	175
„ 5	4,843	29.1	15.8	2.2	127
„ 6	3,272	18.4	16.1	1.2	150

Year 1912.

Ward.	Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infantile Mortality rate.
No. 1	6,192	19.4	16.4	1.2	123
„ 2	4,841	18.7	15.6	0.6	32
	(less Asylum)				
„ 3	8,347	21.5	18.3	0.9	111
„ 4	6,144	17.0	14.9	0.6	104
„ 5	4,843	26.2	14.8	0.8	140
„ 6	3,272	16.5	12.8	1.3	148

It is a rule to be strictly observed in dealing with vital statistics that no deduction should be founded unless the number of observations on which such deduction is made are considerable. The deduction is trustworthy in proportion as the observations are numerous and on the assumption that the latter are at the same time accurate and comparable. Bearing this rule in mind we must not attach too great an importance to the above Ward death-rates because they deal with comparatively few observations, yet the outstanding feature is the high death-rates for young children prevailing in Wards 5 and 6 and to a less extent in Ward 4.

Infant life is peculiarly susceptible to injurious sanitary surroundings and thus the number of deaths of infants in a district forms one of the most correct indicators of good or bad environment. It has been truly said that the most dangerous of all occupations is that of being a baby. Thus it comes about that those districts possessing high rates of infantile mortality are usually the areas in which bad sanitation, lack of maternal care, &c., do most prevail.

Wards 4, 5 and 6 must be considered as deserving of the Sanitary Authority's most careful attention in this matter.

The high Zymotic death-rate in Wards Nos. 3 and 5, are accounted for in the case of Ward 3 by the large number of deaths from scarlet fever and in the case of Ward 5 by the excessive number of deaths of young children from diarrhoea and enteritis which latter diseases are peculiarly and closely associated with bad sanitation and maternal ignorance and neglect.

I next append the six tables showing the deaths in the Municipal Wards arranged under the headings to which such deaths were ascribed and distributed in the various age groups.

WARD 1.

FOR YEAR ENDING DECEMBER 1913.

Population 6,192.

Cause of Death.	Under						Over			T'tl
	1	1-2	2-5	5-15	15-25	25-45	45-65	65		
Scarlet Fever	1	1	2
Whooping Cough	1	1
Diarrhoea & Enteritis	1	...	1	2
Influenza	1	1
Pulmonary Tuberculosis .....	...	...	...	...	...	2	3	1	6
Tubercular Meningitis	1	1
Other Tuberculous Diseases.....	1	1	1	1	4
Cancer (Malignant Disease) .....	...	...	...	...	...	2	1	4	7
Organic Heart Disease ...	...	...	...	1	2	3	4	...	10
Bronchitis .....	...	...	...	...	...	2	5	7	
Broncho-pneumonia	1	1
Pneumonia (all other forms) .....	...	...	...	...	...	...	...	1	1
Appendicitis .....	...	...	...	...	...	...	1	...	1
Alcoholism .....	...	...	...	...	...	1	...	...	1
Cirrhosis of Liver .....	...	...	...	...	1	1	...	...	2
Nephritis and Bright's Disease .....	...	...	...	...	...	...	1	...	1
Congenital Debility Malformation and Premature Birth ...	1	...	...	...	...	...	...	...	1
Violent Deaths (including Suicides) .....	...	1	...	...	...	...	...	1	2
Other Defined Diseases	4	...	1	...	1	2	6	17	31	
Totals	10	3	2	1	2	10	21	33	82	

WARD 2.

FOR YEAR ENDING DECEMBER 31st, 1913.

Population (Census 1911, 5,999, less 1,158 not inhabitants),
 Nett 4,841.

Cause of Death.	Under								Over T'tl.
	1	1-2	2-5	5-15	15-25	25-45	45-65	65	
Whooping Cough ...	1	...	...	...	...	...	...	...	1
Diphtheria & Croup ...	...	...	...	1	...	...	...	...	1
Diarrhoea & Enteritis ...	...	...	...	...	...	...	...	1	1
Pulmonary Tuber- culosis .....	...	...	...	...	...	2	...	...	2
Cancer (Malignant Disease) .....	...	...	...	...	...	1	4	1	6
Organic Heart Disease ...	...	...	...	...	...	...	7	6	13
Bronchitis .....	...	...	...	...	...	...	3	...	3
Broncho-pneumonia ...	1	1	...	...	...	...	1	...	3
Pneumonia (all other forms) .....	...	...	2	...	1	1	...	...	4
Appendicitis .....	...	...	1	...	...	...	...	...	1
Alcoholism .....	...	...	...	...	1	...	...	...	1
Cirrhosis of Liver ...	...	...	...	...	1	1	...	...	2
Nephritis and Bright's Disease .....	...	...	...	...	...	...	2	2	4
Congenital Debility Malformation and Premature Birth ...	4	...	...	...	...	...	...	...	4
Violent Deaths (includ- ing Suicides) .....	...	...	...	...	...	...	...	1	1
Other Defined Diseases 2	...	...	1	1	...	7	18	29	
Ill-defined or unknown Diseases.....	1	1	...	...	...	...	...	...	2
Totals	8	2	1	5	1	6	26	29	78

WARD 3.

FOR YEAR ENDING DECEMBER 31st, 1913.

Population 8,347.

Cause of Death.	Under							Over		T'tl
	1	1-2	2-5	5-15	15-25	25-45	45-65	65		
Scarlet Fever	1	1	2	1	...	...	...	...	5	
Whooping Cough ...	2	2	...	...	...	...	...	...	4	
Diphtheria & Croup...	...	1	...	...	...	...	...	...	1	
Diarrhoea & Enteritis ...	...	...	...	...	1	...	1	1	2	
Pulmonary Tuber- culosis .....	...	...	...	1	3	3	...	7		
Cancer (Malignant Disease) .....	...	...	...	1	2	6	2	11		
Organic Heart Disease ...	...	...	...	1	3	9	8	21		
Bronchitis .....	...	...	...	...	...	2	4	6		
Broncho-pneumonia... ...	1	1	...	...	...	...	1	1	3	
Pneumonia (all other forms)	1	...	...	1	...	1	2	5		
Other Respiratory Diseases.....	...	...	...	...	...	...	1	...	1	
Appendicitis .....	...	1	...	...	...	...	...	...	1	
Cirrhosis of Liver ...	...	...	...	...	...	2	...	...	2	
Nephritis and Bright's Disease .....	...	...	...	1	...	3	3	7		
Other Acc. and Dis. of Pregnancy & Par- turition .....	...	...	...	...	1	1	...	2		
Congenital Debility Malformation and Premature Birth ...	4	...	...	...	...	...	...	...	4	
Violent Deaths (includ- ing Suicides) .....	...	...	...	...	1	1	...	2		
Other Defined Diseases	6	3	...	1	1	3	11	25	50	
Ill-defined or unknown Diseases .....	...	1	...	...	...	...	...	...	1	
Totals	13	10	4	2	6	14	40	46	135	

WARD 4.

FOR YEAR ENDING DECEMBER 31st, 1913.

Population 6,144.

Cause of Death.	Under								Over	
	1	1-2	2-5	5-15	15-25	25-45	45-65	65	T'tl	
Influenza .....	...	...	...	...	...	...	...	...	1	1
Pulmonary Tuberculosis .....	...	...	2	...	3	2	...	...	7	
Tubercular Meningitis .....	...	...	1	1	...	...	...	...	2	
Other Tuberculous Diseases.....	...	1	1	1	1	...	...	...	4	
Rheumatic Fever.....	1	...	...	...	...	...	...	...	1	
Cancer (Malignant Disease) .....	...	...	...	...	2	3	2	7		
Organic Heart Disease	1	...	...	1	3	6	8	19		
Bronchitis .....	...	...	...	...	1	1	4	6		
Broncho-pneumonia...	2	...	1	...	...	...	...	...	3	
Pneumonia (all other forms) .....	...	...	...	1	...	...	...	...	1	
Nephritis and Bright's Disease .....	...	...	...	...	1	1	1	1	3	
Cirrhosis of Liver ...	...	...	...	...	...	1	...	...	1	
Other Acc. and Dis. of Pregnancy & Parturition	1	...	...	...	...	2	...	...	3	
Congenital Debility Malformation and Premature Birth ...	7	...	...	...	...	...	...	...	...	7
Violent Deaths (including Suicides) .....	...	...	1	...	...	...	...	...	1	
Other Defined Diseases	6	...	...	2	...	2	5	9	24	
Ill-defined or unknown Diseases.....	3	...	...	...	...	...	...	...	3	
Totals	21	...	2	7	4	15	19	25	93	

WARD 5.

FOR YEAR ENDING DECEMBER 31st, 1913.

Population 4,843.

Cause of Death.	Under							Over	
	1	1-2	2-5	5-15	15-25	25-45	45-65	65	T'tl
Enteric Fever .....	...	...	...	...	1	...	...	...	1
Measles	1	...	...	...	...	...	...	...	1
Scarlet Fever .....	...	...	1	...	...	...	...	...	1
Whooping Cough ...	...	1	...	...	...	...	...	...	1
Diphtheria & Croup...	...	...	1	...	...	...	...	...	1
Diarrhœa & Enteritis	6	...	...	...	...	...	...	...	6
Pulmonary Tuber- culosis .....	...	...	...	...	1	1	3	1	6
Tubercular Meningitis	1	...	1	...	...	...	...	...	2
Other Tuberculous Diseases.....	...	...	1	...	...	1	...	...	2
Cancer (Malignant Disease) .....	...	...	...	...	...	1	4	2	7
Organic Heart Disease	...	...	...	1	...	...	5	1	7
Bronchitis	1	...	...	...	...	...	1	1	3
Broncho-pneumonia...	1	1	1	...	...	...	...	...	3
Pneumonia (all other forms) .....	...	...	...	...	1	1	...	...	2
Nephritis and Bright's Disease .....	...	...	...	...	1	...	1	1	3
Congenital Debility Malformation and Premature Birth ...	2	...	...	...	...	...	...	...	2
Violent Deaths (includ- ing Suicides) .....	...	...	1	...	...	...	...	...	1
Other Defined Diseases	5	1	1	...	...	...	2	18	27
Ill-defined or unknown Diseases.....	1	...	...	...	...	...	...	...	1
Totals	18	3	5	3	4	4	16	24	77

WARD 6.

FOR YEAR ENDING DECEMBER 31st, 1913.

Population 3,272.

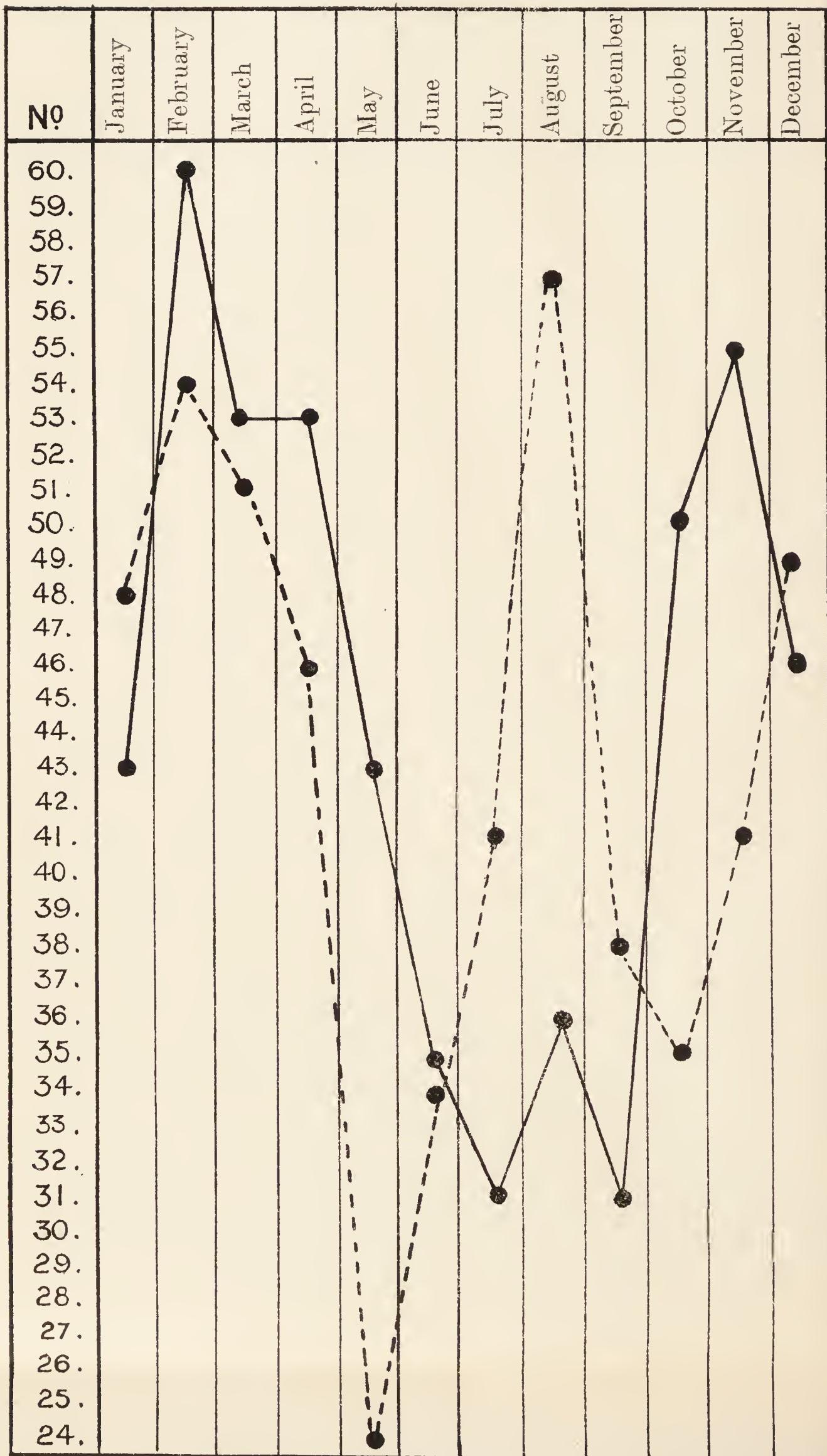
Cause of Death.	Under								Over	
	1	1-2	2-5	5-15	15-25	25-45	45-65	65	T'tl	
Scarlet Fever .....	...	...	1	...	...	...	...	...	...	1
Diphtheria & Croup...	1	...	...	...	...	...	...	...	...	1
Diarrhoea & Enteritis	1	...	...	...	1	...	...	...	...	2
Pulmonary Tuber- culosis .....	...	...	...	...	1	...	1	...	...	2
Cancer (Malignant Disease) .....	...	...	...	...	...	...	4	...	...	4
Organic Heart Disease	1	...	...	...	...	1	9	2	13	
Bronchitis	1	...	...	...	...	...	2	2	...	5
Nephritis and Bright's Disease .....	...	...	...	...	...	...	...	...	1	1
Congenital Debility Malformation and Premature Birth ...	3	...	...	...	...	...	...	...	...	3
Violent Deaths (includ- ing Suicides) .....	...	...	...	...	...	1	...	...	...	1
Other Defined Diseases	1	1	...	...	1	2	2	12	19	
Ill-defined or unknown Diseases.....	1	...	...	...	...	...	...	...	...	1
 Totals	9	1	1	...	3	4	18	17	53	

Continuous line 1912 (last year).

Interrupted line 1913 (this year).

MONTHLY DEATHS.

N.B.—The fall in May and the rise in August.



MORTALITY IN RELATION TO SEASON.

The numbers of deaths in each quarter of the year compared with the previous year is set out in the following table :—

Years	1913		1912
First Quarter	153	.....	156
Second Quarter	104	.....	131
Third Quarter	136	.....	98
Fourth Quarter	125	.....	151

There is a marked reduction in all the quarters, except the third, which shows an increase of 38—viz., 10 in July, 21 in August and 7 in September.

MONTHLY DEATHS.

January	48	deaths ; under one year	7,	over 65 years	20.
February	54	"	9,	"	20.
March	51	"	5,	"	19.
April	46	"	9,	"	16.
May	24	"	2,	"	5.
June	34	"	6,	"	9.
July	41	"	5,	"	15.
August	57	"	10,	"	18.
September	38	"	6,	"	12.
October	35	"	5,	"	8.
November	41	"	7,	"	15.
December	49	"	8,	"	16.

The noteworthy feature of the above table is the large number of deaths recorded in August—57 against 36 last year—the number under one year of age being doubled, and also over 65 years of age, so that the excessive mortality during this month fell on the two extremes of life. Why this should have been so during this particular month is difficult of explanation and may have been coincidental.

This table clearly shows how heavy is the death-rate on old people and young children during cold, damp weather.

Infants and old persons stand exposure to cold and damp badly, and readily acquire one or other form of respiratory disease which may end fatally.

It should be clearly understood that colds in the head are extremely infectious and in many persons readily spread from the nose and throat on to the chest, giving rise to Bronchitis and Broncho-pneumonia. Whilst cold and damp are to be avoided, foul hot air is more dangerous still, and people living in badly ventilated warm rooms, catch colds on the slightest exposure to infection.

Fresh warm air, avoidance of overclothing, guarding against associating with persons suffering from "colds," would do much to reduce the suffering and death which occurs from lung diseases at the beginning and end of each year. This especially applies to young children and old persons.

It is little short of criminal for a person suffering from a cold to kiss a baby or elderly individual.

Colds in the head are especially infectious during the first 24 to 48 hours of onset, and infection is scattered broadcast when sneezing and coughing. Such sufferers ought to avoid attending public meetings, churches, &c., in the interest of the public health.

Further, if the death-rate from lung diseases amongst young children and elderly people is to be diminished, the public will have to learn that fresh warm air is a prime necessity in treatment and that the attempt to procure warmth at the expense of freshness, has a most detrimental influence on the sufferer. I would strongly recommend the American doctor's "Prescription for killing a baby with pneumonia."—"Crib in far corner of room with canopy over it, steam kettle, gas stove (leaky tubing), room at 80°F., many gas jets burning, friends in room, also the pug dog, chest tightly enveloped in waistcoat poultice. If child's temperature 105°F., make a poultice thick, hot and tight. If these don't do it, blanket the windows, shut the doors and wait."

INFANTILE MORTALITY.

Number of deaths of children under one year of age	79
Death-rate per 1,000 born	113
Do. do. last year	115
England and Wales, 1913	109
96 Great Towns	116
145 Smaller Towns	112

The Infantile death-rates in the non-county boroughs of Cheshire together with the percentage of married and widowed women in occupation as shown by the 1911 Census Returns are set out in the following table :—

	Infant death-rate per 1000 born.	Census 1911 Percentage of married and widowed women in occupation.
Congleton	130	24.6 per cent.
Crewe	103	7.0 ,,
Dukinfield	139	27.2 ,,
Hyde	152	29.8 ,,
Stalybridge	147	31.6 ,,
Macclesfield.....	113	34.1 ,,

I am indebted to the Registrar General for the figures relating to employment of women. He kindly sent me an advanced copy of this Census Return.

Writing in 1902, the then County Medical Officer of Health said, “The Borough of Macclesfield is one of the districts where a high infant mortality rate has been recorded for years.” In that year the Ladies’ Public Health Society came into existence and since then there has been a steady decline till now Macclesfield is one of the non-county Boroughs where a comparatively low rate of infantile mortality prevails.

Although there is this marked improvement, the figure is still capable of much further reduction and a country town like Macclesfield the infant death-rate ought not to exceed 100 per 1,000 born. In the Rural District of Macclesfield it only reached 81 per 1,000 born and given suitable conditions of maternal and child life, this figure ought to be attainable by us.

PRINCIPAL CAUSES TO WHICH THE INFANT
DEATHS WERE ASSIGNED.

	Year		
	1913	1912	1911
Diarrhoea	4	3	23
Enteritis	6	8	13
Premature Birth	15	18	17
Congenital Malformations ...	2	7	7
Atrophy, Debility, Marasmus	7	5	6
Pneumonia	4	7	6
Bronchitis	1	7	4
Convulsions	8	10	10
Syphilis	7	3	4
Scarlet Fever	2	0	0
Measles	0	2	0
Whooping Cough	3	0	7

The diarrhoeal group of diseases continues to provide comparatively few deaths, but the number ascribed to prematurity still remains too high. I discussed this question very fully in my last annual report and I would again point out:—

It has been found on enquiry that half the mothers of infants dead of immaturity, suffer from marked ill-health and poor physique, further, that 80 per cent. of the mothers whose infants died from prematurity, congenital conditions or debility, had previously had miscarriages, abortions, or premature births, and lastly, that ten per cent. of the mothers of immature infants were underfed though nearly a quarter of them had undergone exceptionally hard work during their pregnancy.

DISTRICT INFANTILE MORTALITY.

	Infantile mortality rate per 1,000		
	born.	...	Last year.
Ward 1	86	...	123
,, 2	98	...	32
,, 3	71	...	111
,, 4	175	...	104
,, 5	127	...	140
,, 6	150	...	115

Wards 4, 5 and 6 are thus responsible for our high death-rate amongst infants. Wards 5 and 6 have had a high rate for two years. It is thus quite plainly indicated that these are the areas where the

Sanitary Authority must exercise close observation and care. Our Health visitors have done an incalculable amount of good in visiting every newly-born infant and instructing the mother where needed in the management, care, feeding, &c., of the baby and herself. Many thousands of such visits have been made and our Health visitors have brought tactful sympathy, knowledge and practical help into many poor homes where such help and knowledge was badly needed and where I am pleased to say in almost all cases it was gratefully appreciated and to a greater less extent acted up.

Infant mortality varies widely, not only in different towns, but in the various wards or districts of the same towns. Poverty or riches, sanitary or insanitary conditions, occupation or the want of it, high birth-rate or low, all play their part in bringing these variations about. But every extended inquiry into the intricate subject of infant mortality brings to light the fact that parents living approximately under the same social and sanitary conditions have such varying success in rearing their infants that the personal factor requires a careful study.

The highest infant mortality is always reached in the summer and early autumn, the cause of death being ascribed to diarrhoea. The subject has been carefully investigated bacteriologically, but no organism so far has been identified solely as the cause. The contents of some of the foul feeding bottles have been subjected to analysis, with results showing that this liquid was of an extremely dangerous character, and certain samples have proved so highly virulent as to kill the animal inoculated with it within 48 hours.

The Medical Officer has for many years pointed out that milk, as nature intended it to be given to infants, is never once exposed to the air, that it passes directly at the time of the manufacture in the gland to the stomach ; its composition, temperature and mixture, adapt it to the needs of the offspring ; it has neither abstractions, adulterations, preservatives nor uncleanness ; it is, moreover, bacteriologically clean and pure. Nothing the municipality can do can equal this.

NOTIFICATION OF BIRTHS ACT.

This Act came into force in the Borough in April 1908.

During the year 1913, the following numbers of notifications have been received.

Total number of births registered	708
Number of births notified by midwives	576
Do. do. parents	108
Do. do. Workhouse Master	8
Do. do. doctors	16

It thus appears that practically all births are notified under the Act.

This little act has proved to be one of the most valuable bits of Sanitary Legislation passed in recent years. We now get in touch with the babies before irreparable damage has been done by wrong feeding and faulty maternal care or neglect. We have to be careful not to trench upon the province of the midwives.

PUBLIC HEALTH SOCIETY.

This Society of voluntary Health workers continues its beneficent work in our town.

Established in 1902, it has year by year, tactfully, quietly and successfully carried out its purposes which are :—

- (1) To take every infant under the guardianship of the Society for the first twelve months.
- (2) To promote cleanliness and better hygienic conditions in the homes.
- (3) To teach the most economical forms of cookery in the homes.

Under the able Presidency of Mrs. Walter Greg and the capable Secretaryship of Mrs. Schill, supported as they have been by a self-sacrificing committee of ladies of the town and neighbourhood, this Society which was a pioneer in the work, has done yeoman service for the public health and the public owe it a deep debt of gratitude.

Through its health visitors it is kept in touch with the official side of the work and it is represented on the joint Committee of the Education Authority, and the Sanitary Authority, and it thus proves a desirable link between voluntary and official health work. This happy combination exercises a most valuable influence on both sides, mitigating official formalities with the more sympathetic informality of the lay worker and yet avoiding sloppy sentimentalism.

WORK OF THE SOCIETY.

The two health visitors—Miss Parkinson and Miss Finigan—have made 8,404 visits to infants born during the year and have personally advised the mothers as to the proper food for the child, &c.

In connection with the Society, a Thrift Club has been established and it is interesting to learn that during the year over £50 had been saved in coppers by the prospective mothers.

DINNERS TO MOTHERS.

The dinners to expectant and nursing mothers, provided by the generosity of Mrs. Broadhurst, at a nominal charge of One Penny, have done great good and have been much appreciated. These dinners are also an incentive to breast feeding, as no bottle fed infants are admitted.

BABIES' WELCOME.

I am very pleased to report that whilst this Report was in hand the Health Society decided to establish a Babies' Welcome. I hope to be able to furnish particulars of this excellent Institution in my next Annual Report.

SAND GARDEN.

A sand garden is also run in connection with the Society for the care during school hours of children under school age.

GIRLS' CLUB.

This Club is also a branch of the same Society and is doing excellent work amongst the working girls of the town.

TUBERCULOSIS.

Number of deaths from all forms of Tuberculosis	45
Do. do. Pulmonary Tuberculosis	30
Death-rate per 1,000 of population from Pulmonary Tuberculosis	0·8
Ditto last year	1·2

TABULAR STATEMENT SHOWING AGES AT WHICH
DEATH OCCURRED OF PERSONS SUFFERING
FROM PULMONARY TUBERCULOSIS.

Ward	Male	Age.	Female	Age.
1	1	28	...	1
1	1	70		
1	1	51	...	
1	1	26	...	
1	1	52	...	
2	1	45	...	Nil.
2	1	37	...	
3	1	42	...	1
3	1	48	...	1
3	1	55	...	1
3 .....		...	1	34
4	1	29	...	1
4	1	55	...	1
4	1	29	...	1
4	1	65	...	
5	1	46	...	1
5 .....		...	1	47
5 .....		...	1	49
5 .....		...	1	74
5 .....		...	1	41
6	Nil.		1	50
6 .....		...	1	23
Totals for Boro'	15	678	...	15
				590

Average age for Males ... 45·2.
 ,, ,, Females... 39·3.

TOTAL IN WARDS.

No. 1	Five deaths ; death-rate per 1,000	...	0·8
,, 2	Two ,, ,, ,,	...	0·4
,, 3	Seven ,, ,, ,,	...	0·8
,, 4	Seven ,, ,, ,,	...	1·1
,, 5	Six ,, ,, ,,	...	1·2
,, 6	Two ,, ,, ,,	...	0·6

THE NOTIFICATION OF TUBERCULOSIS.

On the 1st of February, 1913, the Board's Order extending compulsory notification to cases of all forms of tuberculosis, and consolidating the three previous Orders as to notification of pulmonary tuberculosis, came into force. Modifications of the previous regulations were introduced, which experience had shown to be desirable. These modifications may be summarised as follows :—

(1). The practitioner is not required to notify if he has reasonable ground for believing that the tuberculous patient when first seen by him has already been notified to the medical officer of health of the district in which the patient resides at the time when seen.

(2). Notifications are to be sent to the medical officer of health of the district in which the patient is residing, instead of to the medical officer of health of the district in which the patient is examined by the doctor.

(3). School medical inspectors are now required to notify new cases weekly, and send their notifications to the medical officers of health of the districts in which the notified children reside.

(4). The medical officers of poor law institutions and of approved sanatoria are now required to notify all patients admitted to the medical officers of health of the districts from which the patients have been admitted, and all patients discharged to the medical officers of health of the districts to which they are discharged.

During the year 150 notifications have been received, 134 on Form A, 10 on Form C, 6 on Form D. These various forms related to 78 cases of pulmonary tuberculosis and 56 cases of other forms of tuberculosis.

The Medical Officer for the Local Government Board commenting on the action which sanitary authorities should take after notification, writes as follows :—

“ PUBLIC HEALTH ACTION FOLLOWING NOTIFICATION.—Article XII. of the new Regulations directs that the medical officer of health, or an officer of the local authority acting under the instruction of the medical officer of health, shall make such inquiries and take such steps as may be necessary or desirable for investigating the source of infection, for preventing the spread of infection, and for removing conditions favourable to infection.”

"In investigating the source of infection it is always desirable to examine such contacts of the patient as are willing to be examined. Not infrequently the patient, although he is the first member of the family to come under observation, is not the original infecting case in the household. Hitherto the medical officer of health has been handicapped, except in a few places, by the difficulty of securing expert aid in examining contacts, and has been obliged to carry out this investigation more or less imperfectly. Under the new conditions it is hoped that throughout the country the services of the tuberculosis officers will be available for this work."

"It will be observed that the medical officer of health is made responsible for the action needed to trace sources of infection, to prevent the spread of infection or to remove conditions favourable to infection. This responsibility rests with him whatever may be the local system of organisation as to tuberculosis. The officers of the tuberculosis dispensary acting independently can only deal with the cases attending the dispensary, including those applying for sanatorium benefit, and cannot undertake the work of cleansing, disinfection, or other sanitary improvements that may be needed."

"It is evidently necessary that arrangements should be made for co-ordinating the work of the medical officer of health and of the dispensary officers, though the exact system under which this can be most efficiently carried out will differ according to local circumstance ."

THE FOLLOWING TABLES SHOW THE SEX, AGES AND DISTRIBUTION OF THE CASES. 33

AGE PERIODS.

Under 1 year.	1-5		5-15		15-25		25-45		45-65		Over 65		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Pulmonary Tuberculosis .....	...	...	...	...	1	2	11	6	4	8	4	4	21
Other forms of Tuberculosis	1	2	11	6	4	8	4	8	2	4	7	1	13
Combined totals	3	3	17	16	16	16	25	25	43	25	5	5	134

DISTRICT NOTIFICATIONS.

M. F.	Ward 1		Ward 2		Ward 3		Ward 4		Ward 5		Ward 6		Total
	M.	F.											
Pulmonary Tuberculosis	4	7	23	7	7	8	3	8	2	6	2	1	41
Other forms of Tuberculosis	11	7	5	2	4	7	4	2	5	6	1	2	30
Combined totals	29	37	26	17	17	17	19	19	6	19	6	6	134

Of the cases in No. 2 Ward, 23 were notified from Parkside Asylum and 6 from the Union Infirmary. The latter had resided outside the Borough prior to admission to that institution. There were also three cases of non-residents notified from the General Infirmary and included in No. 1 Ward.

The 56 cases of Tuberculosis were as follows :—

	Male.	Female.	Total.
Glands of Neck	8	...	9
Axillary Glands	1	...	0
Mesenteric Glands	2	...	0
Prostrate Gland	1	...	0
Glands of Elbow	0	...	1
Testes	1	...	0
Intestines	0	...	1
Appendix	1	...	0
Peritoneum	0	...	1
Tuberculous Pleurisy ...	1	...	0
Spine	4	...	2
Brain & Cerebral Meninges	2	...	3
Larynx	1	...	0
Right arm, neck and shoulder	1	...	0
Left arm	0	...	1
Hand and forearm	1	...	0
Hand	2	...	0
Hip	1	...	2
Femur	1	...	0
Knee	2	...	3
Tibia sheath and tendons	0	...	1
Ankle	0	...	2
<hr/>			
Totals	30	...	26
			56

The number of cases which received institutional treatment is as follows :—

PULMONARY	TUBERCULOSIS.	Males.	Females.	Total.
Sanatoria		10	...	8
Parkside Asylum		14	...	6
Workhouse Infirmary ...		8	...	4
General Infirmary		0	...	2
Private Nursing Homes...		0	...	2
Manchester Hospital ...		0	...	1
<hr/>				
Totals		32	...	23
				55

OTHER FORMS OF TUBERCULOSIS.

	Males.	Females.	Total.
General Infirmary	11	9	20
Manchester Hospital ...	0	2	2
Workhouse Infirmary ...	2	3	5
Parkside Asylum	1	2	3
Childrens' Convalescent Home	0	1	1
 Totals	14	17	31

A combined total of 86 cases.

DISINFECTION.

During the year 38 houses have been disinfected after the death or removal of the patient

THE SANATORIUM.

The Sanatorium has been kept open during the year, but the advent of the National Insurance Act has altered the whole condition of affairs. Previously we received only advanced cases from our own Borough, but the County Insurance Committee have made arrangements for us to treat a limited number of advanced cases occurring amongst insured persons from other towns.

Eight admissions from the Borough have taken place, details will be found under the head of Hospital.

Many of the cases of tuberculosis occurring in our town have been dealt with in other Sanatoria where they have been sent by the County Insurance Committee.

EXAMINATION OF SPUTUM.

During the year 57 specimens were sent to the Clinical Research Association, London, for examination and report as to the presence of tubercle bacilli in 12 cases, the result was positive.

THE ZYMOTIC DISEASES.

The principal zymotic diseases are the following seven :—

1. Small-pox.
2. Measles.
3. Scarlet Fever.
4. Whooping Cough.
5. Diphtheria.
6. Typhus, Typhoid or continued fevers.
7. Diarrhoea.

The total number of deaths occurring from these diseases during the year, was 35 against 30 last year.

This is equivalent to a zymotic death-rate of 1.0 per 1,000 of population, against 0.8 per 1,000 last year.

The following table shows the deaths attributed to these diseases during the year, compared with previous years.

Diseases.	1913	1912	1911	1910	1909	1908	1907	1906
Small-pox	0	0	0	0	0	0	0	0
Measles	1	6	0	4	4	19	0	6
Scarlet Fever	9	7	4	5	1	0	3	12
Diphtheria	4	2	1	3	3	8	4	7
Whooping Cough	7	1	12	3	0	1	14	0
Typhoid Fever ...	1	2	2	2	3	3	3	1
Diarrhoea	13	12	29	2	5	5	4	26
	—	—	—	—	—	—	—	—
Totals	35	30	48	19	16	36	28	52

A high death-rate from Enteric fever, Diphtheria or Diarrhoea, may be taken to imply defective sanitation.

A death-rate due to such a mixed group of diseases as the above list, means simply the presence or absence of grave epidemics, and denotes nothing as to the health conditions of the community in other respects. A high death-rate from these diseases may also indicate a failure on the part of the Sanitary Authority to control their spread by isolation, or to reduce their fatality by treatment in hospital of the worst cases, as in Measles and Scarlet Fever.

Zymotic death-rate since 1874 with quinquennial averages :—

Years	Death-rate from the seven Zymotic Diseases.	Years	Death-rate from the seven Zymotic Diseases.
1874	2·5	1894	1·6
1875	2·4	1895	3·1
1876	6·0	1896	3·2
1877	2·1	1897	3·2
1878	2·3	1898	1·8
1879	1·7	1899	2·6
1880	1·1	1900	1·8
1881	3·4	1901	1·6
A1882	3·0	c1902	0·3
1883	2·3	1903	0·9
1884	2·2	1904	2·3
1885	0·8	1905	1·6
1886	1·6	1906	1·5
1887	3·2	1907	0·8
B1888	1·4	d1908	1·0
1889	3·0	1909	0·4
1890	1·4	1910	0·5
1891	1·1	1911	1·5
1892	1·1	1912	0·8
1893	1·3	1913	1·0

A—Compulsory Notification came into force.

B—Isolation Hospital Opened.

C—Isolation Hospital Enlarged and Improved.

D— do. do. do.

DISTRICT ZYMOTIC DEATHS.

	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6
Enteric Fever	0 ...	0 ...	0 ...	0 ...	1 ...	0
Small-pox	0 ...	0 ...	0 ...	0 ...	0 ...	0
Measles	0 ...	0 ...	0 ...	0 ...	1 ...	0
Scarlet Fever	2 ...	0 ...	5 ...	0 ...	1 ...	1
Whooping Cough	1 ...	1 ...	4 ...	0 ...	1 ...	0
Diphtheria	0 ...	1 ...	1 ...	0 ...	1 ...	1
Diarrhoea	2 ...	1 ...	2 ...	0 ...	6 ...	2
Totals	5 ...	3 ...	12 ...	0 ...	11 ...	4

QUARTERLY ZYMOTIC DEATH-RATE.

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
Enteric Fever.....	0	...	0	...
Small-pox	0	...	0	...
Measles	0	...	1	...
Scarlet Fever	3	...	0	...
Whooping Cough	0	...	0	...
Diphtheria	0	...	2	...
Diarrhoea	0	...	1	...
Totals	3	...	4	...
			14	...
				14

It will be noted that the heaviest mortality fell on Ward 5, and that the third and fourth quarters of the year had the highest numbers of deaths. The autumnal deaths from diarrhoea extended well into the early winter months.

Finally, although the zymotic death-rate is a little higher this year than last, the epidemic of scarlet fever more than accounts for it, and it is a matter for congratulation that the deaths from the diarrhoeal group of diseases keeps so low. Enteric fever has become almost a negligible quantity, a very satisfactory state of affairs and one for which I believe the abolition of the privy midden is largely responsible.

DIARRHŒA.

Many different terms are employed to designate the disease officially known as epidemic diarrhoea, and in order to avoid discrepancy in the classification of death returns in 1900, The Royal College of Physicians authorised the use of the term "Epidemic Enteritis" or if preferred by the practitioner "Zymotic Enteritis" as a synonym for epidemic diarrhoea.

Domestic overcrowding, darkness and dirtiness of premises, the keeping of milk and other foods in cellars and pantries, liable to the entry of sewer gas, or foul air or dust, are conducive to a high diarrhoea death-rate.

Milk kept in open jugs becomes infected through the agency of flies and dust, containing particles of horse excreta from the streets:

Number of deaths from Diarrhoea and Enteritis.....13

Eight of these were under one year of age and two were over 65 years of age.

	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6
Number of deaths from Diarrhoea	2	...	1	...	2	...

QUARTERLY DEATHS.

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
Number of deaths.....	0	...	1	...

The deaths amongst children under three months of age, either wholly or partially fed on artificial foods are fifteen times as great as they are amongst an equal number of infants fed on breast milk.

The preventive measures taken against diarrhoea have been as follows :—

(1). A handbill is distributed by the Health Visitors and Sanitary Inspectors, setting forth the common causes of diarrhoea and the precautions to take against its onset, and the steps to take when it invades a household.

(2). During the third quarter of the year, special inspections were made at frequent intervals of insanitary areas and the frequent removal of filth and accumulations of refuse.

(3). Special enquiries were made in all cases having a fatal termination.

(4). Special bills and illustrated leaflets were posted about the town, setting forth the life history of the common house fly.

The teachers at the public elementary schools displayed these cartoons on the school notice-boards, and gave homely talks on the part flies play in the propagation of disease.

I desire specially to urge on the Sanitary authority, the extreme importance of insisting on the frequent—at least once a week—removal of stable refuse and horse dung, and the necessity for the provision of covered manure pits. Further, the ordinary dry-ash bin, unless kept covered and frequently emptied may become a breeding ground for maggots—the larvae of flies.

MEASLES.

Number of deaths	1
„ „ last year	6
Number of cases notified by School teachers	57

This year was one of the interepidemic years and consequently there is nothing specially to comment on.

WHOOPING COUGH.

Number of deaths	7
Number of deaths last year	1
Number of cases notified by School teachers.....	269

It will be noted that once again an epidemic of Whooping Cough follows an epidemic of Measles and it appears that many of the children who had Measles last year suffered from Whooping Cough this year. This strongly suggests that the condition of the mucous membranes of the nose and throat left after Measles predisposes to infection with the organism of Whooping Cough the Bacillus Pertussis—which was discovered in 1906 by Boodet and Gengou.

The gravity of this disease is not appreciated : it is the most frequent cause of death in children under five years of age.

The disease first showed itself at the beginning of June. During the month 12 cases were reported from three schools. As the schools closed for holidays from the middle of June to the middle of July, no cases were notified, though doubtless many occurred. From the middle to the end of July, 116 cases were reported. 85 were reported in August, 30 in September, 10 in October, and 13 during November and December.

At the onset of the epidemic a handbill was sent round to the Head-teachers of the Public Elementary Schools warning them of the presence of the disease, detailing the precautionary measures to be taken and asking them to assist in checking the disease at the commencement. Some exception seemed to be taken to distributing the handbill during the earlier stage of the invasion, principally from the fear that a panic or scare might be provoked. I need hardly point out that unless these handbills are widely circulated at the very earliest moment it is quite impossible to stem the rising epidemic tide, and I trust that I may count on the loyal co-operation of the teachers of the time to assist me in the carrying out of measures the immediate need and wisdom of which does not strike them at first glance, but which are really based on an extended and varied experience of dealing with epidemic diseases.

Table showing the number of deaths from Measles and Whooping Cough compared with the number of deaths from all the other notifiable Infectious diseases.

Year.	Whooping Cough.	Measles.	All other Notifiable Infectious Diseases.
1903	1	0	14
1904	13	36	5
1905	18	1	14
1906	0	6	20
1907	14	0	10
1908	1	19	11
1909	0	4	10
1910	3	4	10
1911	12	0	7
1912	1	6	11
1913	7	1	14
Totals	70	77	126
	147		

In dealing with these two diseases—Measles and Whooping Cough—we must remember that the number of deaths does not indicate the destruction of the life due to them since both these diseases are commonly associated with Bronchitis and Pneumonia, and it is beyond question that deaths primarily due to Measles or Whooping Cough are entered in the death returns as due to pulmonary disease.

The only hope of reducing the mortality from Measles and Whooping Cough apart from preventive measures, consists in impressing on the parents the need for careful nursing, warmth and rest in bed during the first few weeks of the disease.

These diseases are extremely fatal to children under five years of age, and it is little short of criminal folly to expose young children to the risk of infection under the pretext that they **must** have the disease at some time. This exploded myth has been responsible for scores of deaths of young children, and for the life-long damage in the cases of others who have partially recovered after some serious complication.

Dealing with the question of the value of school closure during times of epidemic prevalence of measles, the Medical Officer of Health for Liverpool (Dr. Hope) writes :—

“ It becomes important, however, to close, before the epidemic has got its grip on the schools, if the closure is to be of any value whatever. This consideration would no doubt weigh with School Managers and others who think it unreasonable to close an Infant Department before it is ravaged with disease.

“ Clearly the school closure is only one link in a chain of defence, and infection spreads by many other ways than by the schools. There is very definite evidence, however, that school closure does check and postpone a rising epidemic ; evidence which is confirmed by the observation that sometimes on the re-assembling of the schools, when the period of incubation has passed, the outbreak resumes its old intensity and destructiveness.”

Dealing with the belief common amongst some persons that a child **must** have Measles he writes :—

“ Amongst the poor and ignorant mothers it is not an uncommon practice, when measles breaks out in the house, to put those children who have not suffered with the sufferers, in order that they may all have it together and get it over. This is, of course, a wholly indefensible procedure, but it is not unlikely that a few Managers of schools

may, in view of the recurrence of outbreaks of measles, share the view that the school may as well get it over and have done with it, and that efforts to postpone what is inevitable are not worth the trouble and inconvenience of making, and in any event are ultimately futile."

"A little consideration, however, would dispel this view. There is no one, for example, who does not do all he can to postpone death, notwithstanding that he is perfectly well aware that his efforts in the long run will be futile."

CANCER.

No. of Deaths from Cancer	1913	...	42
," " "	1912	...	33
," " "	1911	...	44
," " "	1910	...	29
," " "	1909	...	44
," " "	1908	...	43
," " "	1907	...	39
," " "	1906	...	36
," " "	1905	...	53

Enquiry does not show any "cancer houses" or groups of such houses in which successive families have suffered from cancer though in no way related to one another.

We disinfect the house, bedding, &c., on request in any case after a death from cancer, although the view that cancer is due to a parasite possessing some degree of infectiveness is losing ground

As to the cause of the disease our present knowledge admits of little more than the statement that local irritation and the abuse of alcohol appear to predispose to it.

SCHOOL CLOSURE.

No schools were closed during the year under article 57 of the Education Code.

NOTIFICATIONS OF DISEASES BY SCHOOL TEACHERS.

546 notifications were received by the Medical Officer of Health from School Teachers dealing with the following conditions :—

German Measles	5
Measles	57
Sore Throat and Mumps	28
Whooping Cough	269
Sores on face and body	36
Chicken Pox	15
Ringworm	35
Suspected Scarlet Fever	68
Diseases of the Eye	8
Various Skin Diseases	21
Dirty and Scabby Heads	4
	—
	546
	—

All these cases are enquired into by the Sanitary Inspector or School Nurses, and are either excluded from school or receive other suitable instructions. The promptness with which the information is sent is of the greatest importance and School Teachers are urged to notify forthwith all doubtful cases.

DISEASES NOTIFIABLE UNDER THE INFECTIOUS DISEASES (NOTIFICATION) ACT, 1889. AND THE PUBLIC HEALTH (TUBERCULOSIS REGULATIONS) 1912.

This Act which was formerly permissive is now made compulsory throughout the country.

The Principal Infectious diseases were compulsorily Notifiable in Macclesfield under the Local Act of Parliament since 1882.

The following diseases are now notifiable under the Act in this Borough :—

- Small-pox.
- Cholera.
- Diphtheria.
- Membranous Croup.
- Scarlet Fever.
- Enteric or Tphoid Fever.
- Typhus Fever.
- Relapsing Fever.
- Continued Fever.
- Puerperal Fever.
- Ophthalmia Neonatorum.
- Acute Poliomyelitis.
- Cerebro-Spinal Fever.

I have included Pulmonary and General Tuberculosis in the tables dealing with compulsorily notifiable diseases, although it is not notifiable under the notification of Infectious Diseases Act 1889, but was made notifiable by the Local Government Board under the Public Health (Tuberculosis) Regulations 1912 which came into force on February 1st, 1913.

NOTIFICATION BY MEDICAL CERTIFICATES SINCE 1886.

	Small-pox.	Scarlatina	Diphtheria	Membranous Group	Typhus Fever	Typhoid Fever	Continued Fever	Puerperal Fever	{ Acute Poliomyelitis & Cerebro-Spinal F.	{ Ophthalmia { Neonatorum	Pulmonary Tuberculosis	Other Forms	Totals.	
1886	...	42	2	...	2	19	1	...	...	...	...	...	...	66
1887	...	639	8	...	...	44	8	2	...	...	...	...	...	711
1888	9	208	2	...	1	19	10	4	...	...	...	...	...	153
1889	...	144	...	...	...	17	12	...	...	...	...	...	...	173
1890	...	98	...	...	...	7	2	2	...	...	...	...	...	109
1891	...	38	2	...	...	14	1	1	...	...	...	...	...	56
1892	1	51	2	...	...	14	3	...	...	...	...	...	...	71
1893	6	250	5	...	...	13	2	...	...	...	...	...	...	277
1894	4	42	5	1	...	17	2	6	...	...	...	...	...	80
1895	...	31	117	22	...	29	...	1	...	...	...	...	...	178
1896	...	28	227	...	...	22	...	2	...	...	...	...	...	280
1897	...	62	36	1	...	36	...	1	...	...	...	...	...	135
1898	...	268	20	...	...	46	...	...	...	...	...	...	...	353
1899	...	303	14	...	...	35	...	1	...	...	...	...	...	351
1900	1	50	16	...	...	62	...	1	...	...	...	...	...	156
1901	1	28	24	...	...	20	...	1	...	...	...	...	...	73
1902	...	126	12	2	...	26	...	5	...	...	...	...	...	196
1903	20	141	20	...	...	21	...	4	...	...	...	...	...	282
1904	49	56	7	1	...	12	...	4	...	...	...	...	...	176
1905	6	103	12	2	...	13	...	5	...	...	...	...	...	177
1906	...	394	20	1	1	13	...	1	...	...	...	...	...	430
1907	...	66	46	1	...	11	...	3	...	...	...	...	...	127
1908	...	55	39	...	...	9	...	...	...	...	...	...	...	103
1909	...	173	14	...	...	24	...	5	...	...	...	...	...	216
1910	...	284	16	...	...	15	...	4	...	...	...	...	...	319
1911	...	258	14	...	...	24	...	6	...	...	6	...	...	308
1912	...	289	19	...	...	9	...	...	...	...	2	86	...	405
1913	...	296	23	...	...	31	...	...	...	5	80	53	...	488

NOTIFICATIONS IN MACCLESFIELD.

Classified in age periods and compared with the previous year.

Year ending 31st December, 1913.

Diseases.	Under						Over	
	1 yr.	1-5	5-15	15-25	25-45	45-65	65	T'tl.
Scarlet Fever	4	81	179	23	9	...	...	296
Diphtheria .....	...	9	7	4	2	...	1	23
Enteric Fever .....	...	...	10	12	6	3	...	31
Erysipelas.....	...	1	3	2	5	6	4	21
Ophthalmia Neonatorum	5	...	...	...	...	...	...	5
Tuberculosis :								
Pulmonary .....	...	...	4	17	37	17	3	78
Other Forms	3	17	12	8	6	8	2	56
Totals	12	108	215	66	65	34	10	510

NOTIFICATIONS IN MACCLESFIELD.

Year ending December, 1912.

Diseases.	Under						Over	
	1 yr.	1-5	5-15	15-25	25-45	45-65	65	T'tl.
Scarlatina	1	86	165	24	11	2	...	289
Diphtheria	1	13	4	1	...	...	...	19
Typhoid Fever .....	...	...	2	2	5	...	...	9
Erysipelas.....	...	1	...	3	8	3	...	15
Ophthalmia Neonatorum	2	...	...	...	...	...	...	2
Pulmonary Tuberculosis...	...	...	5	19	37	23	2	86
Totals	4	100	176	49	61	28	2	420

DISTRICT NOTIFICATIONS.

Diseases.	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	T'tl.
Scarlet Fever.....	65	31	86	37	43	34	296
Diphtheria	2	3	8	6	4	...	23
Enteric Fever	13	2	2	1	11	2	31
Erysipelas	3	1	4	5	5	3	21
Ophthalmia Neonatorum	1	3	...	1	...	...	5
Tuberculosis :							
Pulmonary	11	30	15	11	8	3	78
Other Forms	18	7	11	6	11	3	56
Totals	113	77	126	67	82	45	510
Last year	131	45	79	74	49	42	420

In comparing these totals with last year's figures we must bear in mind the fact that only pulmonary tuberculosis was notifiable in 1912, but that during 1913 all forms of tuberculosis became notifiable and these figures have materially increased the numbers of cases notified.

The next four tables show the notifications allotted to the several quarters of the year and allocated their several age groups.

NOTIFICATIONS.

For Quarter ending 31st March, 1913.

Diseases.	Under						Over		T'tl.
	1 yr.	1-5	5-15	15-25	25-45	45-65	65		
Scarlet Fever	2	31	68	9	9	...	...	...	119
Diphtheria .....	...	...	2	2	1	...	1	...	6
Enteric Fever .....	...	1	2	1	1	1	...	...	5
Erysipelas.....	...	1	2	...	1	3	1	...	8
Ophthalmia Neonatorum	1	...	...	...	...	...	...	...	1
Tuberculosis :									
Pulmonary .....	...	...	2	6	12	7	...	...	27
Other Forms	1	13	6	4	4	4	...	...	32
Totals	4	45	81	23	28	15	2	198	

NOTIFICATIONS

For Quarter ending 30th June, 1913.

Diseases.	Under						Over	
	1 yr.	1-5	5-15	15-25	25-45	45-65	65	T'tl.
Scarlet Fever .....	...	13	41	3	...	...	...	57
Diphtheria .....	...	2	2	...	...	...	...	4
Enteric Fever .....	...	...	5	4	2	...	...	11
Erysipelas.....	...	...	1	...	1	1	1	4
Ophthalmia Neonatorum	1	...	...	...	...	...	...	1
Tuberculosis :								
Pulmonary .....	...	...	...	6	8	4	1	19
Other Forms	1	1	2	1	...	...	...	5
Totals	2	16	51	14	11	5	2	101

It will be noted that the largest number of notifications was received during the first quarter of the year. This represents the continuance of the epidemic of scarlet fever which commenced during the last quarter of the previous year.

NOTIFICATIONS

For Quarter ending 30th September, 1913.

Diseases.	Under						Over	
	1 yr.	1-5	5-15	15-25	25-45	45-65	65	T'tl.
Scarlet Fever	2	17	27	3	...	...	...	49
Diphtheria .....	...	...	...	1	...	...	...	1
Enteric Fever .....	...	...	4	4	1	1	...	10
Erysipelas.....	...	...	...	2	2	...	1	5
Ophthalmia Neonatorum	1	...	...	...	...	...	...	1
Tuberculosis :								
Pulmonary .....	...	...	...	3	10	3	...	16
Other forms .....	...	1	3	2	1	2	2	11
Totals	3	18	34	15	14	6	3	93

NOTIFICATIONS

For Quarter ending 31st December, 1913.

Diseases.	Under						Over		T'tl.
	1 yr.	1-5	5-15	15-25	25-45	45-65	65		
Scarlet Fever .....	...	20	43	8	...	...	...		71
Diphtheria .....	...	7	3	1	1	...	...		12
Enteric Fever .....	...	...	...	2	2	1	...		5
Erysipelas.....	...	...	...	...	1	2	1		4
Ophthalmia Neonatorum	2	...	...	...	...	...	...		2
Tuberculosis :									
Pulmonary .....	...	...	2	2	7	3	2		16
Other Forms	1	2	1	1	1	2	...		8
Totals	3	29	49	14	12	8	3		118

SMALL-POX.

No cases of this disease have been notified during the year. We know that this disease tends to recur with exceptional virulence at irregular intervals. Some believe that a period of thirty years marks the interval between the times at which Small-pox acquires a special malignancy and power of spreading, others think that there is a ten yearly cycle and on this basis we might expect some epidemic prevalence this year or next, the last cycle of epidemic years being 1901-3.

No one can say certainly when the next epidemic will occur. Indeed the only means of forecasting the extent of small-pox invasion is by a careful consideration of the extent to which preventive measures are available or are likely to be applied in such a way as to ensure success. The most essential means of prevention is, of course, vaccination **properly applied.**

VACCINATION RETURNS.

I am indebted to Dr. J. Brierley Hughes, public vaccinator, for the following figures relating to the vaccination of infants in the Macclesfield Union.

Year.	No. of Births.	Vaccinated.	Postponed on account of Health.	Exemptions.
1908	... 1287	... 882	... 52	... 256
1909	... 1222	... 811	... 91	... 365
1910	... 1207	... 749	... 87	... 426
1911	... 1147	... 569	... 23	... 407
1912	... 1059	... 564	... 52	... 459
1913	... 1175	... 505	... 38	... 502

The remarkable increase of exemptions from 19 to 42 per cent. of all the children born in 1909 as compared with this year, amply justifies the belief that the conscience clause of the Vaccination Act is nowadays applied with a freedom that was never intended by the legislature, and it is feared that there will be some day a reckoning in England, such as there was in Montreal. In that city over a period of eight years, there grew up a large population unprotected by vaccination. In 1885 small-pox was introduced and within a few months over 3,000 people died from it.

SCARLET FEVER.

Number of cases notified	296
,, last year	289
Number of deaths from Scarlet Fever	9
,, last year ...	7
Fatality Rate	3.04 per cent. notified.
,, last year	2.4 ,,
Number of cases removed to Hospital	186
,, last year ...	160
Percentage of cases notified removed to Hospital...	62.8
,, ,, last year	55.3

The fatality rate has been steadily rising for the last three years. I have repeatedly called attention to this peculiarity of scarlet fever and I repeat what I said in my last year's annual report.

" It may be that for years scarlet fever assumes a mild type, attended by a low fatality rate, it then suddenly becomes more severe in character, with a correspondingly larger number of deaths, and this for no reason which we can at present assign. It is especially after prolonged periods of apparent mildness that it suddenly assumes a dangerous aspect and the public cannot afford to treat this deceptive disease with lightness, because of its present apparent harmlessness."

Districts from which the cases were removed to hospital :—

Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6
45 ...	26 ...	59 ...	18 ...	21 ...	17

QUARTERLY NOTIFICATIONS.

119 were notified during the quarter ending	March.
57 ,,	June.
49 ,,	September.
71 ,,	December.

DISTRICT NOTIFICATIONS.

Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6
65 ...	31 ...	86 ...	37 ...	43 ...	34

AGES AT WHICH THE DISEASES OCCURRED.

4 children were under 1 year of age.
81 children were between 1 and 5 years of age.
179 ,, ,, ,, 5 and 15 ,, ,,
23 cases ,, ,, 15 and 25 ,, ,,
9 ,, ,, 25 and 45 ,, ,,

HOSPITAL VERSUS HOME TREATMENT.

In connection with the fatality rate of Scarlet Fever cases, it is interesting to note that 222 cases from the town were treated in the Borough Isolation Hospital, and that six of these died, giving a death-rate of 2.7 per cent. treated, whilst of the 74 treated at home, 3 died, which gives a death-rate of 4.0 per cent. treated at home or nearly double the rate of Hospital treated cases.

A similar result was obtained last year.

Further, most of the Hospital cases came from very poor over-crowded homes, and the children were of a poor type physically.

HISTORY OF SCARLET FEVER DURING THE YEAR.

The epidemic which commenced in October of last year continued during the first quarter of this year, subsiding towards the end. During January 62 notifications were received, in February 35, and 22 in March, a total of 119 for the quarter.

The remaining cases were distributed throughout the year, the heaviest incidence being in June, August and November, with 24 cases in each of the two first named months and 33 in the last mentioned. The number of cases occurring in the different wards was fairly even

In all 9 deaths have occurred, 6 in cases removed to the hospital and 3 in cases nursed at home.

Of the cases that died in hospital, 1, a girl, was under 2 years of age, 1 girl was aged 3 years, 2 boys and 1 girl were 4 years, and 1 boy was aged 6 years. Of the cases that died at home, 2 were under 1 year of age, and 1, a girl, was 9 years of age, the last mentioned had a cardiac affection prior to being attacked.

Of the 9 fatal cases, 7, or 78 per cent of the deaths, occurred in children under 5 years of age.

There was no special incidence on schools. A consideration of the influence of hospital Isolation on the spread of scarlet fever clearly shows that although the benefits of such isolation are to some extent neutralised by the occurrence of "return cases" it is only too plain that under our present system of medical organisation, notification comes too late to be of much use, the scarlatinal infection having taken hold of the family before the doctor is called in. Hospital Isolation does not therefore have a fair chance.

Sixty per cent of the Secondary cases are already infected before notification or removal of the first case.

If Hospital Isolation of scarlet fever is to be fairly effective, earlier discovery or recognition of cases is necessary.

Further, the figures recorded year after year, show how much better results are obtained in hospitals than by home treatment.

ENTERIC FEVER.

Number of cases notified	31
,, ,, ,, last year	9
Number of deaths from Enteric Fever	1
,, ,, ,, last year ...	2

Fifteen cases were admitted into our Isolation Hospital against sixteen last year.

Wards in which the cases occurred.

Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6
13 ... 2 ... 2 ... 1 ... 11 ... 2					
5 were notified during the first quarter of the year.					
11 ,, ,, second ,, ,,					
10 ,, ,, third ,, ,,					
4 ,, ,, fourth ,, ,,					

Eight of the cases notified in No. 1 Ward were from the General Infirmary, and included four patients in the children's ward and four nurses. The first case notified in the Infirmary was that of a nurse who had been nursing in the children's ward, a case supposed to have "meningitis" whose blood gave a partial Widal reaction, but from whose stools and urine bacillus typhosus was not extracted but Morgan's No. 1 bacillus was found. This patient subsequently went to the Union Infirmary and made a complete recovery.

In some of the other cases notified, there was much discrepancy in the bacteriological results obtained by two different Bacteriological Laboratories and the clinical signs were of a mild type and in some cases absent altogether.

None of the four children notified had ever exhibited any clinical signs of enteric fever, and one laboratory returned the blood as being positive and another laboratory using the same dilution, same time exposure and blood taken at the same time, returned a negative result. In all these cases the stools and urine were sent for bacteriological examination. In none was the typhoid bacillus found, but Morgan's No. 1 bacillus was present in all the specimens of faeces. A more contradictory and unsatisfactory state of affairs it is almost impossible to imagine, nor one which rendered the task of detecting the source of infection more difficult. Further, the blood of the cook to the Institution was sent to both laboratories, one returned it positive and one negative. The stools and urine were in this case also examined and only the Morgan No. 1 bacillus found. I can only conclude the real source of infection was the small boy admitted to the children's Ward with "Meningitis." The date of his admission and the date on which his nurse sickened, confirming this conclusion.

With respect to the other cases the following details are of interest.

One of the cases was imported, a youth who had been working out of the town for some considerable time returning home when ill.

Another was contracted from a case nursed in the same house.

In six cases shell fish had been partaken prior to attack, mussels in three instances and oysters in the other three, all of the latter occurred in the same house.

Of the 10 cases notified during the third quarter, 8 occurred in the same district as was affected in 1911. The first of the cases was notified on the 17th July, during the remainder of the month five more cases were reported, the other two being notified during August.

In one instance three cases, a woman and two boys were reported from the same house. One case ended fatally, a youth aged 15 years dying the day after removal.

The privy middens in connection with the houses in this street were undoubtedly a source of danger as previously detailed. These could not be altered on account of the absence of a proper sewer. The question of sewerage the street had been under consideration for some time. On the occurrence of this outbreak, it was at once taken in hand. With the construction of the sewer the conversion of the privy middens and re-construction of the house drains were carried out, effecting a much needed sanitary improvement.

As shell fish, particularly mussels, seemed to be a possible source of infection in some of the cases, I had a specimen sent from the person who had supplied the sufferers from enteric fever for bacteriological examination, and the following report was submitted :—

Bacteriological examination of these mussels has failed to demonstrate the presence of any organism of the Typhoid group.

As regards sewage indications the following results have been obtained :—

Bacillus Coli—are present in numbers corresponding to 400 but less than 4,000 per mussel.

Spores of Baeillus Enteritidis Sporegenes—are present in numbers corresponding to 40 but less than 400 per mussel.

Streptococci—are present in numbers corresponding to 400 but less than 4,000 per mussel.

In calculating these results it was assumed that the whole contents of each mussel shell was present so that the proportionate allowance of juice for each mussel might be made.

The sewage pollution indicated by these results cannot be regarded as gross, but is more than can be considered in our opinion, quite satisfactory.

It should be borne in mind that the examination of samples of shell fish as exposed for sale does not necessarily afford evidence as to the state of pollution of the beds from which they are derived as considerable alteration in the bacterial content may take place during the time which elapses, between removal from the beds and sale.

ENTERIC FEVER SINCE 1899.

Year	Number Notified.	Number Died.	No. removed to Hospital.	Fatality per cent.
1899	35	4	7	11.4
1900	62	10	13	16.1
1901	33	2	11	6.0
1902	26	3	4	11.5
1903	21	3	0	14.2
1904	12	2	0	16.6
1905	13	0	0	0.0
1906	13	1	0	7.6
1907	11	3	0	27.2
1908	9	3	4	33.3
1909	24	3	15	12.5
1910	15	3	8	20.0
1911	24	2	21	8.3
1912	9	2	5	22.2
1913	31	1	15	3.2
Total	338	42	103	14.1

WIDAL RE-ACTION.

Sixty-nine specimens of blood from persons suspected of suffering from Enteric Fever were sent by Medical Practitioners for examination—in 21 of these a positive re-action was obtained, in 4 a partial re-action.

DIPHTHERIA.

Number of cases notified.....	23
,, ,, ,, last year	19
,, deaths	3
,, last year	2
Number of cases removed to Hospital	15

Wards in which the cases occurred :—

Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6
2 ...	3 ...	8 ...	6 ...	4 ...	1
(with 1 death)		(with 1 death)		(with 1 death)	
6 cases were notified during the first quarter of the year.					
4 ,, ,, ,, second				,, ,,	
1 case was ,, ,, third				,, ,,	
12 cases were ,, ,, fourth				,, ,,	

111 Swabs were sent to the Clinical Research Association in 39 of these the bacillus of diphtheria was found.

DIPHTHERIA AND MEMBRANOUS CROUP SINCE

1889.

Year.	Number Notified.	Number Died.	No. removed to Hospital.	Fatality per cent.
1899	14	0	0	0
1900	16	5	4	31
1901	24	3	7	12
1902	14	1	5	7
1903	20	3	7	15
1904	7	2	3	28
1905	11	6	3	42.8
1906	21	7	4	33.3
1907	47	4	24	8.5
1908	39	9	15	23.0
1909	14	3	6	21.4
1910	16	4	10	25.0
1911	14	1	5	7.0
1912	19	2	6	10.5
1913	23	3	15	13.0
Total	302	53	111	18.5

No case is discharged from the Isolation Hospital until at least two consecutive negative swabs have been obtained on different days and medical practitioners are strongly urged to follow the same procedure in dealing with their private patients and not to permit the isolation of the patient to be terminated until the throat has been proved bacterially free from infection. This is especially necessary in the case of children returning to school.

For many years past, the following procedure has prevailed and is still in force.

Diphtheria antitoxin of 2,000 or 4,000 Behring-Ehrlich unit per c.c. together with the loan of Serum Syringe, may be obtained, free of cost for poor people, on application by a Medical Practitioner at any hour of the day or night, to the Medical Officer of Health, for curative or immunising purposes. This Serum is always on hand at the Health Office, Town Hall, the Isolation Hospital, or in cases of emergency, at the residence of the Medical Officer of Health.

ERYSIPelas.

Number of cases notified	21
Number of deaths certified	0
The notifications were in the following areas :—	

Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6
3	...	1	...	4	...

PUERPERAL FEVER.

Number of cases notified	0
„ „ „ last year	0
„ deaths „	0
„ „ „ last year	0

OPHTHALMIA NEONATORUM.

This disease has been compulsorily notifiable since April 1910.

Number of cases notified during 1913	5
„ „ „ „ 1912	2

1 case occurred in Ward 1, 1911.

3 cases occurred in Ward 2.

1 case occurred in Ward 4.

In all cases, where a Medical man is not in attendance, efforts are made to get the child into the Infirmary immediately, and the Health Visitors are in constant attendance.

This form of inflammation of the eyes occurring in young children during the first fortnight after birth, is very virulent and destructive to the eyes. It is due to purulent discharge getting into the eyes at birth, and is responsible for one-tenth of all cases of blindness, and for at least one-third of the blindness in inmates of British Blind Schools.

Midwives and others, having charge of newly-born infants, should clearly understand that all cases of sore or red eyes in these cases require the prompt attention of a Medical practitioner.

THE ISOLATION HOSPITAL.

Number of Patients in Hospital,	Scarlet Fever.....	511
	Enteric Fever	1
December 31st, 1912	Diphtheria	8
	Scarlet Fever	222
Admitted during 1913	Diphtheria	24
	Enteric Fever	16

Included in the above figures are forty cases admitted from the Macclesfield Rural District, viz. :—

Scarlet Fever.....	32 cases.
Diphtheria	8 ,,

The Bollington Urban District also sent 6 cases included above, viz. :—four of scarlet fever, 1 of diphtheria and 1 of enteric fever.

DEATHS.

Thirteen patients died in the Hospital, this gives a death-rate of 4.9 per cent admitted.

CAUSES OF DEATH.

Scarlet Fever.....	6 deaths.
Diphtheria	4 ,,
Enteric Fever	2 ,,
Toxaemia	1 death.

EXPENDITURE.

	£	s	d
The total expenditure during the year 1913, was.....	17	8	6
Total income received	6	8	0
Nett Expenditure	<u>£11</u>	4	6

This works out at a nett cost of £3 8s. 1d. per patient treated, as against £3 11s. 0d. last year.

Through the courtesy of the Borough Accountant, I am enabled to set out the details of Income and Expenditure for the year 1913.

ISOLATION HOSPITALS.

Statement of Expenditure and Income from 1st January to
31st December, 1913.

EXPENDITURE.	£	s	d	£	s	d
Wages—Matron.....	72	1	8			
Nurses and Probationers	178	12	11			
Maids, &c.	134	19	4			
Porter	73	11	7			
Removing cases from outside area ...	20	14	0			
Draining	0	17	0	480	16	6
Professional Nurses' Services and Expenses		15	4	8		
Drugs and Appliances		52	6	8		
Anti-Diphtheria Serum, &c.		27	0	11		
Fuel		138	17	4		
Gas and Oil		58	2	6		
Groceries, &c.		194	9	5		
Bread, &c.		72	3	7		
Butchers Meat, &c.		153	6	10		
Vegetables and Fruit		45	12	11		
Fish and Poultry		28	4	6		
Milk and Eggs		193	9	6		
Rates, Taxes, &c.		24	13	10		
Printing, Stationery and Advertising		14	0	11		
Ambulance Insurance Premium		1	17	6		
Steam Disinfecter Insurance Premium		1	5	0		
Horse Hire		86	14	10		
Nurses' Uniforms		26	8	6		
Table Cloths, Towels, Bedding, &c.		9	11	5		
Utensils and Repairs, &c.		18	13	3		
Soap		10	15	3		
Disinfectants		2	6	8		
Disinfecter Solution		3	15	0		
Repairs to Buildings, &c.		29	8	5		
Painting, &c.		1	17	6		
Joiners' Work		2	15	1		
Plumbers' Work		8	15	0		
Ambulance Repairs		9	11	6		
Draining, &c.		3	18	3		
Postage Stamps		2	15	0		
National Insurance Contributions.....		8	4	5		
Deputation Expenses		33	14	3		
Sundries		23	19	7		
				£1784	16	6

INCOME.	£	s	d
Rent of field adjoining Hospital	5	0	0
Macclesfield Rural District Council, Reservation Fee	100	0	0
Bollington Urban District Council, do	30	13	4
Nursing Fees :—			
Macclesfield Rural District Council	370	15	0
Bollington Urban District Council	36	16	6
Macclesfield Board of Guardians	79	19	0
Industrial School	9	13	6—
	497	4	0
Sale of Anti-Diphtheric Serum	0	7	0
Disinfection of bedding (Rural District Council cases not removed to Hospital)	2	10	0
Sundry Receipts	2	0	8
	£637	15	0

J. W. HERRINGSHAW,

BOROUGH ACCOUNTANT.

30th April, 1914.

COST OF FOOD.

	1913			1912			1911			1910			1909		
	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d
Groceries	194	9	5	155	19	4	183	17	2	184	13	0	131	19	10
Bread, &c.	72	3	7	51	2	10	61	8	11	62	10	3	46	7	8
Fish, &c.	28	4	6	26	6	0	38	18	4	43	5	7	31	11	11
Butcher's Meat	153	6	10	128	19	4	164	11	4	144	1	6	122	16	0
Vegetables	45	12	11	32	5	0	36	18	7	32	3	0	22	11	5
Milk & Eggs.....	193	9	6	130	0	10	182	12	9	164	0	0	130	17	3
.....
£687	6	7	.....	£524	13	4	£668	7	1	£630	13	4	£486	4	1
.....

322 patients were in hospital 13,683 days, an average of 42.5 days per patient as compared with 41.9 days last year. The Nurses and maids were in hospital 6,093 days. This gives a total number of days in hospital of patients, nurses and maids of 19,776, and the cost per day for food per patient, nurse and maid as $7\frac{1}{2}$ d., compared with $8\frac{1}{5}$ d. last year.

This reflects great credit on the Matron's management.

THE NURSING STAFF.

The permanent Staff consists of :—

- 1 Matron.
 - 1 Charge Nurse.
 - 5 Certificated Assistant Nurses.
 - 5 Probationers.
-

Total ... 12

Owing to the difficulty of obtaining probation nurses, the number of probationers is at the time of writing two short.

RESIDENT ACCOMMODATION.

This is deficient, the Staff has gradually got larger and the accommodation is now much over-taxed. This I shall further allude to when reporting on the proposed extensions at the hospital.

It is interesting to note that the average length of stay in hospital of the infecting case was 7 weeks or a week longer than the period usually considered necessary. It does not appear that prolonged stay in hospital is a preventive of return infection, quite possibly the very reverse is true and that prolonged stay leads to intensification of potentiality for infecting others who are susceptible. With respect to the definition of a "return case" the Society of Medical Officers of Health recommended that the term "Return Case" should include any case of scarlet fever occurring in the same house or elsewhere within a period of not less than 24 hours, or not more than 28 days from and after the release from Isolation of the first person whether at home or in hospital which is apparently traceable to the patient so released. Further, it must be remembered that "Return cases" are not entirely, although largely, a hospital phenomenon. A person treated at home may give rise to a recrudescence of the disease after release from isolation, although this rarely happens, it is interesting as showing that this feature of scarlet fever is developed rather than created by hospital circumstances.

DETAILS OF CASES TREATED.

SCARLET FEVER.

Number treated during the year	222
Number died during the year	6
Death-rate per cent treated	2.7
Number of return cases during the year	10
Percentage return cases per total number treated	4.5

In almost every return case inquiry showed that the child who had been recently discharged from hospital, developed a nasal discharge a few days after returning home and probably this discharge contained the infection of scarlet fever.

DETAILS OF RETURN CASES.

No.	Initials.	Age.	Date 1st case discharged.	Date 2nd case notified.	Period between discharge of 1st case and notifica- tion of the second.	Period 1st case was in Hospital.
1	J. F. S. F.	25 y. 22 y.	18/12/12	7/1/13	20 days	41 days
2	K. MD. E. MD.	8 y. 4 y.	14/12/12	14/1/13	31 days	37 days
3	L. W. E. W.	10 y. 3 y.	7/3/13	14/3/13	7 days	46 days
4	P. H. H. H.	4 y. 6 y.	7/3/13	4/4/13	28 days	39 days
5	A. D. H. D.	5 y. 8 y.	22/5/13	26/5/13	4 days	55 days
6	D. P. E. P.	6 y. 9 y.	13/5/13	27/5/13	14 days	64 days
7	B. E. D. E.	3 y. 5 y.	10/5/13	6/6/13	27 days	72 days
8	J. F. L. F.	12 y. 7 y.	29/7/13	18/8/13	20 days	33 days
9	E. D. R. D.	3 y. 24 y.	17/9/13	6/10/13	19 days	40 days
10	D. B. A. B.	2½ y. 7 y.	19/12/13	29/12/13	10 days	63 days

DIPHTHERIA.

Number of cases treated	24
Number of deaths	4

4,000 to 8,000 units of anti-diphtheria serum are administered to these patients on admission if none has been previously given, and if the case appears to need the treatment. In very severe toxic or laryngeal cases it is given intravenously and thereby the antitoxin is brought much more quickly into contact with the diphtheria toxin. It is reckoned that about 8 hours are saved by injecting it into a vein.

No case is discharged from Hospital until two consecutive negative swabs have been obtained.

Loeffler's Menthol-Toluene solution seems to be a valuable preparation for ridding the throat of the bacillus, but some of the cases continue to furnish positive results for many weeks in spite of all treatment.

ENTERIC FEVER.

Number of cases admitted	16
Number of deaths	2

None of these cases called for special comment. In the early diagnosis of these cases, i.e., during the first week of illness the Diayo reaction of the urine is a great help in diagnosis, its absence almost certainly negatives a diagnosis of enteric fever.

NEED FOR FURTHER ACCOMMODATION.

In February I called the attention of the Health Committee to the urgent need for better and more extended accommodation for the patients and nursing staff. It was pointed out that the old Ducker Hospital of 12 beds was quite useless and that the accommodation for the nursing and domestic Staff was inadequate and over-crowded. The Committee thereupon instructed the Hospital Sub-Committee to consider the report and prepare plans for an extension of the accommodation. This the Committee did and after visiting various hospitals they decided to recommend the erection of a cubicle block to contain 20 cubicles with a central kitchen, ten cubicles to be placed on each side of the kitchen with a central corridor. Leading off the kitchen was a small operating theatre.

THE ADMINISTRATION BLOCK.

The present administration block, a timber building, is to have added to it a permanent brick building. The addition will comprise a large sitting-room, dressing-room, additions to the present kitchen and scullery on the ground floor, and on the first floor there will be five large bedrooms, bathroom, and w.c., and lavatory accommodation. On the second floor will be five bedrooms and a box room. In the ten bedrooms there will be accommodation for 16 beds. The building will be of red brick facings with stone dressings. The rooms will be lighted on all sides, and the building heated throughout with hot-water apparatus in addition to the usual fire places. The cost for this building is estimated at £1,635.

THE SEWAGE.

At present the sewage for the Hospital is treated within the Hospital grounds, by means of tanks and beds, and the Committee now suggests that the whole drainage from the existing building, together with the new additions, be connected to the sewerage system of the town. For this purpose it will be necessary to lay a sewer from London Road to the Hospital grounds, at an estimated cost of £1,930.

OTHER EXPENDITURE.

Additional expenditure will be required for the purchase of land, fencing, drainage, and rebuilding of the mortuary, amounting to £556, making a total of £7,671.

The County Council will bear one-third of the capital cost and one-third of the annual expenditure.

EFFECT ON THE RATE.

The total annual cost to the sinking fund and the interest will be approximately £498. As stated, the County Council will pay one-third £166, which will leave £332 to be provided by the Town Council. This will involve a rate of $\frac{3}{4}$ d. in the £.

At a meeting of the Hospital Sub-Committee held on 14th October, the Borough Surveyor presented the plans and estimates for the provision of a New Cubicle Block and Administrative Block at the Isolation Hospitals. The plans were explained in detail to the Members of the Committee, and the following summary of the cost of the proposed work was submitted, viz. :—

	£ s d
Purchase of $1\frac{1}{4}$ acres of land adjoining the present Hospital, including Solicitor's fees	130 0 0
Providing and fixing fencing round the Hospital to comply with the requirements of the Local Government Board	150 0 0
Building one Cubicle Block for 20 beds (to replace the Old Ducker Hospital) including Operating Room, Lavatories, Bath Rooms, &c.....	3554 15 6
Administrative Block including Dining Room, Sitting Room, Scullery and 10 bed rooms	1635 14 8
Providing and laying sewer from the Hospital to the junction of the Main Sewer in London Road, including wayleaves	1930 13 0
New drainage and re-constructing existing drains at the Hospital.....	243 0 0
Removing and re-building Mortuary, using up existing materials.	33 0 0
 Total estimated cost	 £7677 3 2

and after the matter had been considered, it was resolved that the plans and estimates now submitted by the Borough Surveyor for the proposed additions at the Isolation Hospitals in Moss Lane be approved, and that the Health Committee be recommended to apply to the Local Government Board for sanction to borrow the sum of £7,677 3s. 2d. for the purpose of carrying out the work.

These minutes were approved by the Health Committee on October 16th, and confirmed by the Town Council at their meeting on November 10th, 1913.

Subsequently the plans, specifications, &c., were sent to the Local Government for their approval which has not yet been received.

THE SANATORIUM.

The Sanatorium—late Small-pox Hospital—has been open the whole year for the reception of cases of tuberculosis.

During the first half of the year the cases were received from the Borough only, under the arrangement detailed in my previous Annual Report.

At a meeting of the Hospital Sub-Committee held on May 5th, the following resolution was passed :—

“ That the County Insurance Committee be informed that this Committee are willing to receive cases of Pulmonary Tuberculosis for Hospital Treatment at a charge of £2 2s. 0d. per week per case, when one or two cases only are being treated, and at the rate of £1 15s. 0d. per week per case for three or more cases receiving treatment in the Sanatorium at the same time, on condition that the County Insurance Committee pay the cost of removal of all cases sent in by them and make satisfactory arrangements for the prompt removal of cases in the event of the Hospital being required for cases of Small-pox.”

Number of cases admitted during 1913	21
In Sanatorium, January 1st, 1913	3
Borough cases 8, from outside 13.	

Of the 8 cases admitted from the Borough, 4 were admitted during the first six months of the year.

Of the twenty-one cases admitted during 1913, 14 were men and seven were women.

The Sanatorium has only been used for the type of case known as “ Hospital cases ” that is cases in an advanced condition, the late second or third stage of pulmonary tuberculosis. In some cases the patients had tuberculosis in other parts than the lungs and one or two were cases of severe surgical tuberculosis.

CASES.

- (1) A. E., female, aged 33, Macclesfield. Very advanced case of Pulmonary Tuberculosis following pregnancy. Weight on admission 7 stone 6lbs. 12 oz. Hectic temperature. Admitted January 23rd., discharged April 9th. Weight on discharge 8 stone. Temperature normal. Much improved.
- (2) K. P., of Macclesfield. Admitted February 11th, died March 28th. Female, aged 17. Extensive disease both lungs, much emaciated, bed sores, a very neglected case.
- (3) H. B., female, aged 18, Macclesfield. Weight on admission 7 stone. Both lungs much diseased. Been ill two years. Discharged April 9th, admitted February 27th. Treated with tuberculin. (B. E. mixed). Improved generally, gained 3 lbs. in weight.
- (4) C. A. P., female, aged 44. Admitted March 10th, discharged at own request March 15th.
- (5) F. M., female, aged 17. Admitted June 6th, discharged July 4th. Weight on admission 6 stone, on discharge 6 stone 4 lbs. 8 oz. Been ill six months, extensive disease left lung, much improved, expectoration diminished, cough gone, feels a "lot stronger."
- (6) F. S., male, aged 50, admitted June 6th, discharged August 2nd. Both lungs affected, also larynx, weight on admission 7 stone 13 lbs. 6 oz., on discharge 8 stone 7 lbs. Had Tuberculin B.E. 10,000 Mg. every 7 days. Much improved, appetite good. Feeling much better.
- (7) E. P., male, aged 28, admitted June 6th, died July 2nd. Weight on admission 6 stone 10 lbs., weight on June 27th, 7 stone 8 lbs. 8 oz. Died from a sudden haemorrhage from the lungs after improving rapidly.
- (8) J. M., male, aged 23. Admitted June 23rd, discharged September 13th. Weight on admission 8 stone 8 lbs., on discharge 9 stone 6 lbs. 7 oz. Blood spitting, night sweats, both lungs involved, much improved. No signs of active disease in either lung on discharge.

- (9) M. H., female, admitted July 7th, discharged August 31st. Re-admitted September 22nd, discharged November 29th. Re-admitted December 8th, discharged December 9th (to Eryngo), a very chronic case belonging to Macclesfield in poor surroundings, the disease was slowly progressive all the time and the digestion was poor in spite of treatment. Patient made no progress.
- (10) G. H. B., male, aged 18 years, admitted July 8th, discharged August 9th, weight on admission 8 stone 5 lbs., on discharge 9 stone 12 lbs 5 oz. Both lungs in second stage, much improved. No signs of active disease on discharge.
- (11) J. G., male, aged 19 years, admitted July 21st, discharged October 11th. Tuberculous glands and sinuses all over neck. Left apex in early stage of phthisis. He has had tuberculin treatment at a dispensary. Neck riddled with sinuses. Neck and head fixed with collar of wool and elastic bandage. No movement of neck muscles permitted. Sinuses quite healed and skin of neck perfectly sound on discharge. Weight on admission 9 stone 12 ozs., weight on discharge 10 stone 8 lbs.
- (12) W. T., male, aged 32. Weight on admission 9 stone 6 lbs. 8 ozs. Weight on discharge 10 stone 10 lbs. A very advanced case, cavities in both lungs. Albuminuria. Much improved.
- (13) R. E., male, aged 23 years, admitted August 27th, discharged October 22nd, weight on admission 7 stone 13 lbs. 8 ozs., weight on discharge 9 stone 1 lb. 14 ozs. Large cavity in left lung. Second stage in right lung. Much improved every way.
- (14) H. R., male, aged 44. Admitted September 20th, died October 13th. Both lungs much diseased. Tuberculous ribs and sternum. Tuberculous peritonitis. Tuberculous bladder and prostate. Riddled with tubercle. Absolutely hopeless of any improvement.
- (15) J. S., male, aged 26. Admitted September 24th, died October 11th. Very advanced case. Gangrene of lungs. Smell of breath unbearable.
- (16) J. W., male, aged 26. Admitted October 9th in Sanatorium December 31st. Both lungs in second stage. Right lung more diseased than left. Weight on admission 7 stone 4 lbs. 8 ozs., weight December 25th, 8 stone 2 lbs. Much improved.

- (17) H. M., male, aged 46. Admitted October 16th in Sanatorium December 31st. Weight on admission 7 stone 12 lbs. 8 ozs., weight on December 18th, 9 stone 3 lbs. Both lungs in second and third stages. Cavity in left apex. Larynx involved. Improving nicely.
- (18) J. T., male, aged 39. Admitted October 25th, in Sanatorium December 31st. Weight on admission 9 stone 2 lbs., weight on December 20th 9 stone 4 lbs. Deaf and dumb. Both lungs much diseased. Large tuberculous ulcer size of five shilling piece on left thigh, a very advanced case. Outlook very poor. Not much hope of improvement.
- (19) T. J., male, aged 35. Admitted November 5th in Sanatorium December 31st. Been in here under previous arrangement January 1911. Weight on discharge in January 1911, 12 stone 3 lbs., Weight on admission 9 stone 10 lbs., weight on December 17th, 10 stone 12 lbs. A gradually advancing case. Patient neglected when at home. Extensive disease in both lungs.
- (20) J. A., male, aged 41. Admitted 8th November, in Sanatorium December 31st. Weight on admission 7 stone 12 lbs. 8 ozs., weight on December 13th, 8 stone 4 lbs. 12 ozs. Advanced case. Laryngeal complications. Much improved.
- (21) M. L., female, aged 36. Admitted December 8th, in Sanatorium December 31st. Extensive disease in both lungs. Cavity in upper lobe of left lung. Pregnant. Weight on admission 8 stone 10 lbs., weight on December 11th, 9 stone. A bad case, outlook very bad.

DAYS IN SANATORIUM.

Patients in Sanatorium	1,272 days.
Nurses in Sanatorium	568 ,,
Maids in Sanatorium	300 ,,

Total	2,140 ,,

THE DISINFECTOR.

The Disinfector is 7 feet, furnace heated. Thresh current steam disinfector. It has given entire satisfaction during the year.

The following table shows the amount of material dealt with during the year.

Number of beds disinfected by steam	828	last year	608
Number of blankets, counterpanes, &c.	1633	„	1982
Number of articles of clothing, carpets, &c.	6538	„	5724
Totals	8999	„	8314

ROOM DISINFECTION.

We continue the spraying of walls, floors, ceilings, &c., supposed to be contaminated with infectious material, with a five per cent. solution in water of formalin. This is one of the most penetrating fluid disinfectants we possess.

In a few cases, paraform tablets are vaporised in a special lamp, and formic aldehyde gas is liberated and effects more or less disinfection of surrounding objects. We only use the lamp as an adjunct to the spray, excepting in the cases of books which we treat in a special cupboard with perforated shelves on which the books are placed with the leaves open, whilst below the shelves two lamps vaporising paraform tablets are burning. The gas penetrates to a certain extent between the leaves of the books and a certain amount of disinfection is probably accomplished.

Infection is so largely a personal matter that the wholesale and indiscriminate disinfection of houses from which cases of Scarlet Fever or Diphtheria have been removed to hospital is quite needless and causes much unnecessary inconvenience and expense.

DISINFECTANTS.

We still continue distributing disinfectants gratis at the Town Hall. 6,987 lots were so given out this year, as compared with 6,956 the previous year.

1,550 lots of lime-wash were also given, and 919 brushes loaned for applying same.

This free distribution of disinfectants is a great farce and waste of public money, and I strongly advise the Sanitary Authority to discontinue the practice. It is greater cleanliness and less disinfecting that is needed. The pail and mop generously applied and not the shiftless scattering about of chemicals is what we mainly need.

THE WATER SUPPLY.

The dry summer seriously depleted our storage reservoirs at Langley and led to some periods of curtailed supply.

In August it was noted that the Ridgegate, Bottoms, Tegsnose and Leadbetters Reservoirs were very much below their full capacity, and it was resolved at a meeting of the Water Committee, held on August 22nd, that the Engineer prepare a report on the cost of fixing a siphon between the Ridgegate and Tegsnose reservoirs.

On August 30th, the supply of water to the Town was cut off from 8 p.m. to 5 a.m. The full service of water was renewed on September 8th. On September 30th, the water was again cut off from 7 o'clock p.m. to 7 o'clock a.m.

On November 1st, the supply was further curtailed from 6-30 p.m. to 8-30 a.m.

On November 17th, the restrictions were relaxed so that the water was now only cut off from 7 p.m. to 7 a.m., and on November 31st, the full daily supply was given consumers being warned against "Swilling or wasting water or unduly consuming water."

The large Leadbetters Reservoir in Buxton Road, serves both as a storage reservoir, and makes up the leeway between what the town is consuming and what the Hollin main will carry from Langley.

The following extract from the Water Engineer's report, dated September 29th, will show how scanty the supply of water had become.

"The water in Leadbetters Reservoir is now level with the outlet pipe and therefore holds no reserve supply for the town's consumption, so that the total reserve to the town is a height of 7 feet 3 inches in the Service Reservoir, which represents three or four days supply of water, that is taking into account the whole of the water that can be got from Langley through the Hollins Main. After this time the water supply will be cut off automatically owing to the draw on the Service Reservoir being greater than the quantity of water the Hollins Main will bring from Langley."

"The rainfall for the week ending Monday the 15th inst., was .2in., for the week ending 22nd inst., .55in., and for the week ending 29th inst., .33in., making a total of 1.08in."

" This quantity of rain has only fallen in a series of showers which has not made any material difference to the streams supplying the Reservoirs."

" There is every prospect of fine weather for at least another week, and under these conditions it is necessary for the Committee to re-consider the position."

" It will be remembered that the Committee at their meeting on the 8th inst., instructed me to have the water turned on constantly. This instruction has been duly carried out, and I would respectfully suggest that the supply to the town be shut off between the hours of 8 p.m. and 8 a.m., and that a notice be sent out accordingly to the public, and also that an announcement be put in the local papers, pointing out the serious condition of the water supply. I also suggest that the Baths be asked to close down entirely, and also the Turkish Baths in Newgate."

" Further, the Committee might consider the advisability of asking the Railway Co., to curtail their supply, as also the Brewery Cos. in the town, the latter of which have wells."

" The only alternative is to take steps to erect a pump at Langley with special connections to the existing main across the Hollins, with a capacity equal to pumping two million gallons of water in 24 hours, but I would, however, point out that, in my opinion, this is attended with grave risk, as there is a serious liability of bursting the main, and thus cutting off the present supply to the town, which, although inadequate to cope with the demands for domestic **and** manufacturing purposes, would, in my opinion, be sufficient to supply the town for domestic purposes purely." "

It thus appears that the pressure of water at Langley was not great enough to force sufficient water through the Hollins main to the Leadbetter Reservoir.

At a meeting of the Water Committee, held on October 20th, the Chairman stated that the meeting had been called to consider the question of proceeding with the work of laying the Syphon from the Ridgegate Reservoir to convey water to the Tegsnose Reservoir, and after the Water Engineer had stated that some expense would be saved whilst the water in Ridgegate Reservoir was down to the 19 feet 6 inches level, the matter was fully considered, when it was

Resolved that as the matter is one of urgency, the Water Engineer be instructed to proceed with the work of fixing the Syphon from the Ridgegate Reservoir to convey water to the Tegsnose Reservoir, and that the Town Clerk inform the Local Government Board that the Committee intend to add this scheme to their application for the larger loan for Mechanical Filters and a new High Level Trunk Main, the work being undertaken now as there will be a considerable saving in the cost of carrying out the work owing to the lowness of the water level in Ridgegate Reservoir.

At a meeting of the Water Committee held on October 30th, the Town Clerk reported that the Local Government Board were not opposed to the work of placing a Syphon in the Ridgegate Reservoir to convey water to the Tegsnose Reservoir being done at the present time, and that it would not prejudice the application for the loan for the whole of the Scheme for Mechanical Filters and the High Level Trunk Main.

The Water Engineer reported that the heights of the water in the Reservoirs on the 27th October in each of the following years, was as under :—

Height when full.	Ridge- gate. 41' 3"	Bottoms. 30' 0"	Tegs- nose. 36' 10"	Lead- betters. 27' 0"	Ser- vice. 9' 0"
1909	41' 3"	30' 0"	36' 10"	25' 3"	8' 10"
1910	38' 0"	26' 9"	29' 3"	26' 0"	8' 6"
1911	19' 0"	28' 3"	18' 0"	14' 9"	8' 6"
1912	41' 3"	30' 0"	32' 6"	25' 0"	8' 9"
1913	16' 0"	29' 5"	14' 6"	14' 9"	8' 5"

It appears that the storage capacity of the Langley Reservoirs is insufficient for the supply of the town after a period of drought. This may be due to the gradual silting up of some of the reservoirs, particularly the Ridgegate and further during the last few years a much greater demand has been made for water for the district around Macclesfield for the water carriage system of sewage disposal, and also for manufacturing purposes. I think that there can be no doubt that there is an abundance of water in our gathering grounds, but it needs better collecting and storing.

VALUE OF LARGE STORAGE CAPACITY.

Large storage reservoirs not only ensure against shortage in times of drought, but materially assist in ensuring the purity of the water supply. It is now well proved that the sedimentation which takes place when water is allowed to stand for some days eliminates a large proportion of the dirt and bacteria which may have been carried down by the feeder streams.

Dr. Houston has shown that if sufficient storage capacity is provided, it is possible to eliminate from the water all but a small proportion of disease producing germs. It appears that 2 or 3 weeks storage capacity will eliminate 90 per cent. of the bacteria present in the crude river water taken from the Thames.

NEED FOR BETTER SUPPLY.

So long ago as 1910, the Water Committee had the question of providing a better and increased supply of water under consideration.

It was felt that the present filters (sand) in Buxton Road were much overworked and that there was need for a better supply to the higher parts of the town and particularly the Broken Cross area. For this purpose it is proposed to erect a battery of eight mechanical filters (Bell's patent) on land adjacent to the Mill Pool at Langley. The need for a new main from Langley is due to the fact that although the present main over the Hollins is a fifteen inch main, owing to the length of time it has been in the ground and its poor condition, its delivery capacity is not more than equal to a six inch pipe. The new main from Langley is to run from the Mill Pool, Langley, across the old Leek road, through the fields to London Road near Lyme Avenue, and from there over the fields again to a point below Knowsley Bower Farm in Ryles Park.

To summarise, we need (1) additional storage accommodation ; (2) improved and increased filtering capacity ; (3) an additional main running directly from the proposed new battery of mechanical filters to the higher parts of the town, particularly Broken Cross.

DETAILS OF THE PRESENT WATER SUPPLY.

The principal gathering ground for the towns water is in the uplands, beyond Langley. The water flows through pasture lands principally, and in some cases the streams run dangerously near farmsteads and are liable to pollution.

ANGLEY SUPPLY.

Collecting Reservoirs.	Feeder Streams.
Ridgegate Reservoir, Capacity 129,272,500 gallons.	Trentham Bank Stream. Coopers Stream. Nesset Stream.
Bottoms Reservoir, Capacity 38,937,500 gallons.	Throstles Nest Stream. Tup Close Stream.
Tegsnose Reservoir, Capacity 24,500,000 gallons.	Surplus water from Walker Barn Stream.

The water is conveyed about 3 miles in pipes to the filter beds in Buxton Road.

It is stored before filtration about 2 days. It is then filtered through sand, gravel, stones, &c.

The rate of filtration is about 310 gallons per square yard of filter area in 24 hours. In addition to the water from the Langley supply, a stream called the Black Brook, delivers water direct on to the filter beds in Buxton Road.

WATER SERVICE IN TOWN.

The water is passed through the following filters :—

FILTERS (SAND AND GRAVEL).

Leadbetter, (Buxton Road). Capacity 9,345,000 gallons.	Supplies all the town with exceptions mentioned below.
Round Fountain	Supplies Waterloo Street, Fence Street, to Buxton Road, Commercial Road, Buxton Road from Flint Street, Brook Street from Leigh Street, Waterside and Bank Street, Bank Street from Leigh Street, Mills Croft.

QUALITY OF THE WATER SUPPLIED.

The water was submitted to Chemical and Bacteriological Analysis and the following results were obtained :—

THE CLINICAL RESEARCH ASSOCIATION, LIMITED.

Watergate House,
York Buildings,
Adelphi,

London, W.C.,

1st August, 1913.

UNFILTERED WATER.—(LEADBETTERS RESERVOIR.)

The sample of water marked Leadbetters Reservoir, collected on 25/7/1913, 10-25 a.m., and received here on 26/7/1913, has been examined, and I have been instructed to forward the following report thereon :—

RESULTS.

Chemical.	Parts per 100,000	Grains per Gallon.
Total solids (dried at 120° C.)	7.7	5.4
Combined Chlorine	0.90	0.63
Equivalent to Na Cl	1.49	1.04
Nitric Nitrogen	0.01	0.01
Nitrous Nitrogen	Nil	Nil
Ammoniacal Nitrogen	0.0015	0.0011
Albuminoid Nitrogen	0.0180	0.0126
Oxygen absorbed in 4 hours at 27° C.	0.130	0.091
Lead or Copper	Nil	Nil
Temporary hardness (equivalent to CaCo 3)	3.3	2.3
Permanent hardness	2.9	2.0
Total Hardness	6.2	4.3

BACTERIOLOGICAL (cultural and microscopical)

Average number of organisms producing visible colonies on gelatine plates, incubated at 20—22° C. for 3 days	33 per c.c.
Average number of organisms producing visible colonies on agar plates, incubated at 37.5° C. for 2 days	14 per c.c.
B. Coli	present in 100 c.c.
Streptococci	not found in 30 c.c.
B. Enteritidis Sporogenes	not found in 100 c.c.

REMARKS.

These results may, in our opinion, be regarded as satisfactory for unfiltered water from a moorland area.

The water is soft.

(Signed) C. H. WELLS,

Director of the Association.

THE CLINICAL RESEARCH ASSOCIATION, LIMITED.

Watergate House,
York Buildings,
Adelphi,
London, W.C.,
1st August, 1913.

FILTERED WATER.—(LEADBETTERS RESERVOIR).

The sample of water marked Filtered Water Tap at 30, Bank Street, collected on 25/7/1913, 9.5 a.m., and received here on 26/7/1913, has been examined, and I have been instructed to forward the following report thereon :—

Chemical.	RESULTS.	Parts per 100.000	Grains per Gallon.
Total Solids (dried at 120° C.)	9.8	...	6.9
Combined Chlorine	0.90	...	0.63
Equivalent to Na Cl	1.49	...	1.04
Nitric Nitrogen	0.04	...	0.03
Nitrous Nitrogen	Nil	...	Nil
Ammoniacal Nitrogen	Nil	...	Nil
Albuminoid Nitrogen	0.0060	...	0.0042
Oxygen absorbed in 4 hours at 27° C.	0.075	...	0.053
Lead or Copper	Nil	...	Nil
Temporary Hardness (equivalent to CaCO ₃)	3.4	...	2.4
Permanent Hardness	3.1	...	2.2
Total Hardness	6.5	...	4.6

BACTERIOLOGICAL (cultural and microscopical)

Average number of organisms producing visible colonies on gelatine plates, incubated at 20—20° C, for 3 days	9 per c.c.
Average number of organisms producing visible colonies on agar plates, incubated at 37.5° C for 2 days	4 per c.c.
B. Coli	not found in 100 c.c.
Streptococci	not found in 30 c.c.
B. Enteritidis Sporogenes	not found in 100 c.c.

REMARKS.

These results may, in our opinion, be regarded as satisfactory.

There is no evidence of recent pollution with sewage or animal excreta, and on comparison with the figures given by the unfiltered water it will be seen that there is a considerable diminution in the amount of unoxidised organic matter, as measured by the figures for albuminoid nitrogen and oxygen absorbed.

The water is soft.

(Signed) C. H. WELLS,
Director of the Association.

THE CLINICAL RESEARCH ASSOCIATION, LIMITED.

Watergate House,
York Buildings,
Adelphi,

London, W.C.,

1st August, 1913.

HURDSFIELD PRIVATE SUPPLY.

The sample of water marked Sample No. 2 Royal Oak, Hurdsfield, Private Supply, collected on 25/7/1913, 9-45 a.m., and received here on 26/7/1913, has been examined, and I have been instructed to forward the following report thereon :—

RESULTS.

Chemical.	Parts per 100,000.	Grains per Gallon.
Total solids dried at 120° C.	19.8	... 13.9
Combined Chlorine	1.10	... 0.77
Equivalent to Na Cl	1.82	... 1.27
Nitric Nitrogen	0.05	... 0.04
Nitrous Nitrogen	Nil	... Nil
Ammoniacal Nitrogen	0.0004	... 0.0003
Albuminoid Nitrogen	0.0063	... 0.0044
Oxygen absorbed in 4 hours at 27° C.	0.045	... 0.032
Lead or Copper	Nil	... Nil
Temporary Hardness (equivalent to CaCO ₃)	6.9	... 4.8
Permanent Hardness	6.1	... 4.3
Total Hardness	13.0	... 9.1

BACTERIOLOGICAL (cultural and microscopical)

Average number of organisms producing visible colonies on gelatine plates, incubated at 20—22° C. for 3 days	43 per c.c.
Average number of organisms producing visible colonies on agar plates, incubated at 37.5° C. for 2 days	11 per c.c.
B. Coli	present in 100 c.c.
Streptococci	not found in 30 c.c.
B. Enteritidis Sporogenes	not found in 100 c.c.

REMARKS.

These results indicate, in our opinion, that the sample is of satisfactory organic and bacterial purity and fairly soft.

(Signed) C. H. WELLS.

Director of the Association.

THE MORTUARY.

The public mortuary is situated in Hawthorn Street.

Number of bodies removed to the Mortuary during the year	5
Number of post-mortem examinations made	4

COMMON LODGING HOUSES.

44,531 nightly lodgers were accommodated in the Common Lodging Houses during the year.

SLAUGHTER HOUSES.

During the year much consideration was given to the proposal that a public abattoir should be erected in the town. In February a Report was prepared by the Town Clerk, Sanitary Inspector and Borough Accountant on the provision of a public Slaughter-house for the Borough.

The various points for and against this matter were set out and it appeared that if the scheme and plans therein outlined were carried out, it would cost approximately a sum of £7,300 capital outlay for building, &c., and an annual expenditure of £851 4s. 1d., this to include interest and sinking fund. The income was estimated to be £265 1s. 0d. so that there would have been a nett deficiency of £586 3s. 1d.

The proposal raised considerable opposition from the local butchers and the representatives of their Association met the Health Committee and advanced the following arguments against the proposed abattoir. (1) The present accommodation was adequate to the gradually decreasing needs of the town. (2) There was no cruelty practiced in the slaughter-houses of this town.

An investigation conducted subsequently, showed that there are 17 registered slaughter-houses now in use, and there are 53 Butchers shops. Of these 53 shops, 21 sell imported meat. On April 8th, all the slaughter-houses in the town were visited and the results of the Week-end killing summarised as follows:—28 beasts, 7 calves, 64 sheep and 3 lambs were seen and inspected in the whole of the slaughter-houses then in use.

I think it must be admitted that the number of butchers slaughtering in the town is not increasing.

The cost of erecting an Abattoir on the elaborate lines set out in the above mentioned report, would be practically prohibitive and yet some form of common slaughter-house which would be open to inspection and supervision by the Sanitary Authority would be a great boon and contribute very materially to the health of the town, so that even if the expenditure exceeded the receipts it would still be a profitable investment for the municipality. It is only by inspection of the animal before slaughtering and at the time of slaughtering and of the carcase immediately after slaughtering that a trustworthy guarantee as to the soundness of the meat can be given and that inspection can only be adequately carried out in a public slaughter-house.

DAIRIES, COWSHEDS AND MILK SHOPS.

The outstanding feature in connection with our Milk Supply has been the coming into force on May 1st, of the Tuberculosis Order 1913.

I append herewith the Report of the Veterinary Inspector on the work done under the order during 1913.

The Inspector calls attention to the need for greater ventilation, cleanliness, &c., in the cow sheds of the District, this is a matter which often involves structural alterations and the terms of the Order require that such work should be done by the OCCUPIER, i.e., a tenant may be required to make extensive and expensive alterations to his buildings. Overcrowding is another evil and in one or two instances, I found that this was due to the occupier having rented grazing land from another landlord and that consequently the owner of the shippings could hardly be expected to increase the accommodation. Further, in many cases where proper means of ventilation have been provided, the farmer in his ignorance blocks them up. I think, however, that a gradual improvement is taking place in this respect.

VETERINARY INSPECTORS REPORT
ON THE
TUBERCULOSIS ORDER, 1913.

GENTLEMEN,

Since the above order came in force on May 1st, 1913, to the end of December, 1913, I have made the following examination, etc., under the above order :—

Cows reported 14, out of which 12 when slaughtered, eleven were found on Post-mortem to be suffering from Tuberculosis.

One cow slaughtered reacted to the Tuberculin test, but on Post-mortem I failed to find any tubercular lesions, but was suffering from John's Disease, a disease much similar to Tuberculosis of the Bowels, which at some future date will be included in the list of notifiable diseases.

Two cows were found on Post-mortem to be suffering from Tuberculosis, but not advanced.

Nine cows were found on Post-mortem to be suffering from advanced Tuberculosis.

Eight of the above cases were subjected to the Tuberculin test and all re-acted, the worst of the cases the test was not applied as I did not think it necessary.

I have attended the weekly Auction and the Fairs held in the Borough, and have had six cases removed. Five have been dealt with by the County Authorities and one by the Borough Authority.

There has been two prosecutions under the order. One for not reporting after being duly warned and a Penalty of £5 inflicted.

One for obstructing and a Penalty of £2 inflicted.

The compensation paid has been £32 for animals slaughtered.

Since the order came in force it has had good results. I am sure the worst of the cases are getting weeded out, and the traffic in old worn-out Tubercular cows is practically at an end.

There is one thing that still wants improving, namely, the bad ventilation and bad drainage of some of our cow sheds, which undoubtedly are of the most predisposing causes to disease. These matters no doubt will have the attention of your Medical Officer and your Sanitary Inspector under the New Milk and Dairies Bill.

I remain,

Your Servant.

NORMAN HOWE, M.R.C.V.S.,

Veterinary Inspector.

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS,
1912.

Where samples of cream are taken for the purposes of the Sale of Food and Drugs Acts, the Analyst should include them in his usual quarterly Report, but if they are obtained for the purposes of the Public Health (Milk and Cream) Regulations, a separate Report should be sent by the Authority to the Medical Officer of Health who is required to transmit to the Local Government Board a copy of his Report in the month of January.

The object of Regulations is to prevent adulteration of Cream and Milk and they enact that

- (1) No preservative to be added to milk.
- (2). No thickening substance to fresh or preserved cream.
- (3) No preservative to cream with less than 35 per cent. of fat.
- (4) No preservative to cream with over 35 per cent. fat except Boric Acid, Borax, or Hydrogen peroxide, and in the case of borax or boric acid, the proportion must be accurately stated on the specially defined label.

Two samples of preserved cream were taken during the year, no thickening substance was found and only a small percentage of boric acid had been added as a preservative. The Cream was properly labelled.

HOUSING AND TOWN PLANNING ACT, 1909.

Section 17 of the above Act requires every Local Authority to cause to be made from time to time, inspection of their district with a view to ascertain whether any dwelling-house therein is in a state so dangerous or injurious to health as to be unfit for human habitation.

This section applies to houses irrespective of their rateable value and to houses other than houses for the working classes.

Mr. Hermann, the Assistant Sanitary Inspector was the Officer designated by the local authority to carry out the inspections, acting under the direction of the Medical Officer of Health. I can with pleasure, testify the tactful, careful and skilful way in which these difficult duties have been carried out by him.

Total number of houses inspected during the year.....	1006
Ditto do. last year	1000
Single houses 91, average rent, 1/- to 2/6 a week.	
Two down and two up 323, average rent 1/10 to 4/9 per week.	
Two down and two up with garret 45, average rent 2/2 to 4/9 per week.	
Three down and two up 139, average rent 3/- to 5/- per week.	
Four down and four up 32.	
Empty, 13 or 1.3 per cent. inspected.	
Occupied by owner, 65.	
I have only classified the larger number of houses dealt with.	
In 1911 there were inspected 802 houses with 62 empty.	
In 1912 „ „ 1000 „ 7 „	
In 1913 „ „ 1006 „ 13 „	
Totals for three years 2808 „ 82 „	

We have thus only 2.9 per cent of empty houses in the town as so far inspected and this figure is too large.

AREA OF TOWN INSPECTED.

The area of the Town inspected during the year included : Arbourhay Street, Adelaide Street, Bamford Street, Blagg Street, part of Buxton Road, Commercial Road, Charlotte Street, Daybrook Street, Dicken Street, part of Higher Fence Road, Garden Street, George Street, Hurdsfield Road, Hulley Street, Hulley Place, Howe Street, King Street, Lansdowne Street, Mason's Lane, Norton Street, North Street, Pleasant Street, Princess Street, Queen Street, Smythe Street, Steeple Street, Sunderland Street, Timber Street, Townley Street, Vernon Street, Welch Street and William Street.

RENTALS.

The opinion of the Inspector, Mr. Hermann is " speaking generally, there has been an increase this year in the rents of nearly all the smaller

cottages ranging from one penny to sixpence a week, threepence a week has been the increase in most cases. The raising of the rates is said to be the cause."

The following tables taken from "The Report of an enquiry by The Board of Trade" into working-class rents and retail prices in 1905 and 1912 is interesting in this connection from this table, it clearly appears that the rents including rates, have gone up 15 per cent. and food and coal 14 per cent.

Wages on the other hand have not risen in proportion in the trades under consideration.

MACCLESFIELD.

SUMMARY.—WAGES, RENTS AND RETAIL PRICES.

- (i) Percentage Increase or Decrease between 1905 and 1912.
- (ii) Index Numbers Showing Comparison with London in 1912.

	(i) Percentage Increase (+) or Decrease (-) between 1905 and 1912.	(ii) Index Numbers showing Compari- son with London in 1912 (London— 100).
RATES OF WAGES :—		
Building Skilled Men ...	+ 6	77
Labourers	Nil.	71
Printing—Compositors ...	+ 3	79
RENTS (including Rates) ...	+ 15	38
RETAIL PRICES :—		
Meat	+ 7	95
Food Other Food	+ 16	95
Total	+ 13	95
Coal	+ 24	71
Food and Coal ...	+ 14	92
RENTS AND RETAIL PRICES COMBINED	+ 14	81

Rates of Wages in October, 1905, and October, 1912.

Trade.	Occupation.	Rates of Wages per hour.	
		Oct., 1905	Oct., 1912
BUILDING ...	Bricklayers	8d.	8½d.
	Masons	8d.	8d.
	Carpenters and Joiners ...	8d.	8¼d.
	Plumbers	7½d.	8½d.
	Labourers — Bricklayers', Masons' & Plasterers' ...	5d.	5d.
PRINTING	Compositors	30s.*	31s.*

* Per Week.

RENTS.

Predominant Rents of Working-class Dwellings in October, 1905,
and May, 1912.

Number of Rooms per Dwelling.	Predominant Weekly Rents (including all Rates).	
	October, 1905.	May, 1912.
Two Rooms	1s. 6d. to 2s. 0d.	2s. 0d. to 2s. 2d.
Three Rooms.....	1s. 9d. ,,, 2s. 6d.	2s. 3d. ,,, 2s. 10d.
Four Rooms	2s. 6d. ,,, 3s. 6d.	2s. 9d. ,,, 3s. 9d.
Five Rooms	3s. 3d. ,,, 4s. 6d.	3s. 9d. ,,, 5s. 0d.

DETAILS OF INSPECTION.

The Inspector's table shows in detail most of the work done, but does not by any means indicate the enormous amount of correspondence, interviews, visits, &c., entailed in carrying out this routine work.

The following figures are interesting :—

Total number of houses closed 1913	14
Do. do. 1912	86
Do. do. 1911	13
Total number of houses demolished 1915	38
Do. do. 1912	39
Do. do. 1911	7

These figures are interesting in that they include a considerable number of the houses classed as empty in the 1911 Report, and it thus appears that the percentage of empty houses found in the large area of the town inspected up to date is probably very much below the figures previously recorded.

I do not think that any impartial person would deny that there is clearly evidenced a distinct shortage of working-class dwellings, every effort is made to induce property owners to put their insanitary property into such a state as will enable the Health Authority to terminate the Closing Order, but some of the property dealt with is either structurally so insanitary or the surroundings so unsatisfactory that it is beyond saving and whilst wishful to assist willing property owners it must not happen that a policy of "Slum patching" is countenanced on the specious plea of shortage of houses.

In only three instances during the last three years have Closing Orders been determined. I have placed these facts clearly, I trust, before the Authority responsible for the housing conditions of this town and it now rests with them to deal with conditions revealed.

TOWN PLANNING.

I would again call the authorities attention to the value of a scheme of town planning. Macclesfield must grow, its surroundings are beautiful and its proximity to Manchester will inevitably make it a desirable outlet for dwelling-houses and later of industries which year by year with improved means of locomotion are pushing themselves further afield.

WHY TOWN PLANNING IS NEEDED.

The powers now possessed by Local Authorities in regard to the laying out of towns are extremely limited--especially as regards the future development of a town.

Bye-Laws give no power whereby streets can be laid out in the most convenient direction, or at most suitable gradients, for facility of communication between different localities, except under conditions difficult to apply. Landowners can each lay out their land to suit their own interest, irrespective of the public convenience, and without considering the effect on adjacent lands. Builders can develop small areas of land as they like, provided they comply with the Local Bye-Laws. They can crowd houses up to 40 or 50 per acre. The unscrupulous builder can erect houses of the commonest and cheapest character amongst the best residential property, and thus greatly depreciate the neighbourhood. The minimum width of streets set forth in the Bye-Laws is all that can be required, and in practice becomes almost

the universal rule. It is impossible under the Bye-Laws to plan ahead and save street widenings. This ultimately involves practically every Local Authority in great expense for future improvements, and the saving on this alone will doubtless compensate many times over for the cost of Town Planning.

HOUSING AND TOWN PLANNING ACT, 1909.

REPORT OF INSPECTION OF DISTRICT FOR 1913

The following statement shows the details of the number of houses inspected, the number of Notices served, the alterations and improvements completed up to the end of the year.

Number of houses inspected	1006
,, written representations received	1
,, houses written representation related to	1
,, ,, closed by Order	2
,, ,, demolished by Order	23
,, ,, closed by Order and demolished voluntarily	7
,, ,, demolished voluntarily (6 for building improvement and 2 for more air space) ...	8
Total number of houses closed	14
,, ,, demolished	38
Number of "Closing Orders determined	0
,, houses inspected within the meaning of Sect. 15...	376
,, Statutory Notices served	4
,, Informal Notices served	308
,, Notices complied with	197
,, Notices remaining in hand	111
,, Single houses (7) made into through houses (4)....	7
,, houses enlarged by adding back bedroom and scullery	5
,, houses enlarged by adding scullery	7
,, back doorways made.....	4
,, new windows fixed	860
,, windows altered to improve means of ventilation...	428
,, fireplaces fixed in bedrooms	12
,, stairs repaired or renewed	8
,, bedroom floors repaired or renewed.....	15
,, roofs repaired	30
,, downspouts repaired or renewed	24
,, damp walls remedied	18
,, living room and scullery floors repaired	38
,, house doors repaired, renewed, weather boards or water bars fixed	28

Number of ceilings repaired or renewed	7
,, new slopstones or sinks fixed	24
,, slopstone pipes disconnected from drain	4
,, houses where water has been laid on inside.....	80
,, yards paved and defective flagging repaired.....	21
,, house drains repaired or improved	139
,, privy closets converted into clean water closets.....	103
,, additional water closets built	5
,, doors fixed on ashplaces	2
,, tenants made to clean dirty closets	40
,, tenants made to clean dirty yards	14
,, tenants made to limewash bedrooms, &c.	72
,, cases of overcrowding abated	9
,, nuisances abated from poultry keeping, &c.....	2

DETAILS OF OVERCROWDING.

Of the three cases remaining in hand from 1912, two have been abated, Nos. 1 and 2, by the families removing to larger houses.

DETAILS OF OTHER OVERCROWDED HOUSES.

- No. 1. Four roomed house, two bedrooms, overcrowded by taking in lodgers. Removed to larger house.
- No. 2. Single house with garret. Two families, 5 adult females and two boys 11 and 12 years of age sleeping in one bedroom. One family removed, 3 females and 1 boy
- No. 3. Three rooms down and 2 bedrooms, occupied by father, mother, and 7 children, ranging from 23 years to 12 years. Relieved by eldest son leaving.
- No. 4. Single house with garret, Father, mother, and five children ranging from 12 years to 2 years, sleeping in one bedroom. Abated by using garret as a bedroom.
- No. 5. Four roomed house, two small bedrooms. Father, mother and six children, ranging from 21 years to 7 years. Removed to larger house.
- No. 6. Four roomed house, two bedrooms. Father, mother and six grown-up children. Temporarily abated by two sons sleeping in spare bedroom of neighbour.
- No. 7. Single house. Father, mother and four children, ranging from 15 years to 2 years. Abated by taking another single house in same property.
- No. 8. Three rooms down and two bedrooms up. Father, mother and 9 children, ranging from 19 years to 1 year. Say will remove as soon as possible.
- No. 9. Three rooms down and two bedrooms up. Father, mother and 9 children, ranging from 20 years to 8 years. Say will remove as soon as possible.
- No. 10. Three rooms down and two bedrooms up. Father, mother and 9 children, ranging from 18 years to 11 months. Trying to obtain next door house.
- No. 11. Three rooms down and two bedrooms up. Father, mother and 8 children, ranging from 19 years, to 15 months. Say will remove as soon as possible.

Table showing the particulars of the occupants of the houses occupied by the Working Classes inspected during 1911, 1912,
and 1913 in the East Macclesfield District

The table deals with 2,680 houses out of 2,811 the total number inspected. The number of persons in each class of house is
shown together with the total number of persons occupying.

12th February, 1914, JOSEPH HERMANN.

Description of House.	1 Adult	1 Adult 1 child	1 Adult 2 children	1 Adult 3 children	1 Adult 4 children	1 Adult 5 children	1 Adult 6 children	2 Adults	2 Adults 1 child	2 Adults 2 children	2 Adults 3 children	2 Adults 4 children	2 Adults 5 children	2 Adults 6 children	2 Adults 7 children	2 Adults 8 children	3 Adults	3 Adults 1 child	3 Adults 2 children	3 Adults 3 children	3 Adults 4 children	3 Adults 5 children	3 Adults 6 children	3 Adults 7 children	4 Adults	4 Adults 1 child	4 Adults 2 children	4 Adults 3 children	4 Adults 4 children	4 Adults 5 children	4 Adults 6 children	5 Adults	5 Ad. 1 & 2 ch'dn.	5 Ad. 3 & 4 ch'dn.	5 Ad. 5 & 6 ch'dn.	6 Adults	6 Ad. 1 & 2 Ch'dn.	6 Ad. 3 & 4 ch'dn.	6 Ad. 5 children	7 Adults	7 Ad. 1 & 2 ch'dn.	7 Ad. 3 & 4 ch'dn.	7 Ad. 5 children	8 Adults	8 Adults 1 child	8 Adults 5 children	9 Adults	Empty	Stores & Lock-ups	Totals
	87	5	6	...	2	1	...	59	26	9	10	14											
Single	87	5	6	...	2	1	...	59	26	9	10	14	279													
Single & Garret	5	4	...	2	1	...	1	1	16														
1 Down 2 Up	1	1	2														
2 Down 1 Up	4	...	...	...	...	...	...	9	3	2	1	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21
2 Down 1 Up & Garret	1	...	...	...	...	...	...	1	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
2 Down 2 Up	89	8	5	2	4	...	1	263	122	115	68	42	21	13	1	1	94	51	24	16	7	5	...	1	56	20	18	12	2	...	14	12	6	...	7	5	1155										
2 Down 2 Up, Attic or Garret	12	2	2	20	10	12	4	1	3	1	1	...	10	8	5	4	3	2	7	5	3	1	6	4	1	...	2	134											
2 Down 3 or 4 Up	2	...	...	...	...	...	...	1	2	1	1	...	1	...	...	...	2	2	1	1	...	2	...	...	1	1	1	...	1	1	...	1	1	...	24				
3 Down 2 Up	9	...	8	2	2	82	51	42	19	7	7	1	57	12	10	5	2	3	32	8	8	1	1	...	9	11	4	2	5	2	...	1	...	5	409									
3 Down 2 Up, Attic or Garret	5	22	7	5	4	2	4	1	16	3	1	4	1	10	4	2	1	1	1	5	5	3	1	1	1	...	1	1	2	119									
3 Down 3 Up	10	1	66	26	27	19	5	1	2	...	1	57	12	11	3	2	2	1	...	39	14	7	3	5	2	1	15	15	8	1	14	3	2	1	2	1	3	8	8	399					
3 Down 3 Up Attic or Garret	1	4	2	3	1	2	1	1	1	2	1	2	1	...	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28			
4-3., 4-4., 4-3.1.,	3	15	3	4	3	4	...	1	1	6	7	1	1	1	1	11	3	...	2	3	...	1	1	1	1	1	1	1	1	1	1	1	88						
Totals	228	15	22	5	8	1	1	546	254	222	132	61	37	19	2	2	261	96	54	35	16	14	1	1	157	56	40	19	10	5	3	58	55	24	4	34	12	4	3	6	3	1	3	2	1	4	87	54	2680	

Statement showing number of persons in each class of house and showing total number of persons occupying the houses dealt with in the above table.

Class of house.	Total Occupants.
Single...	435
Single and Garret	36
1 Down 2 Up	4
2 " " " and Garret	50
2 " " " Attic or Garret	17
2 " " " Attic or Garret	3861
2 " " " Attic or Garret	593
2 " " " Attic or Garret	126
3 " " " Attic or Garret	1580
3 " " " Attic or Garret	515
3 " " " Attic or Garret	1933
3 " " " Attic or Garret	123
4-3., 4-4., 4-3.1.,	385
Total number of Persons	9658

SCAVENGING AND REFUSE REMOVAL.

Year.	No. of Loads.	Expenditure.
		£ s d
1888	10,338	821 18 7
1889	10,295	933 16 4
1890	8,523	847 13 9
1891	10,187	1,328 9 10
1892	9,957	1,521 8 6
1893	10,975	1,837 1 9
1894	12,733	1,714 15 8
1895	12,289	1,652 6 8
1896	12,407	1,807 12 6
1897	13,283	2,006 2 3
1898	13,619	2,104 2 4
1899	13,040	2,169 16 10
1900	12,057	2,093 10 0
1901	11,215	2,425 14 2
1902	12,532	2,334 10 9
1903	11,912	2,260 10 5
1904	10,371	1,999 6 4
1905	11,082	1,895 3 5
1906	11,895	1,841 9 1
1907	11,921	2,128 7 8
1906	10,978	2,213 14 2
1909	10,337	2,120 14 5
1910	9,924	2,089 16 7
1911 Loads of nightsoil	5,334	1,056 0 10
Loads of Dry Ashes	4,902	923 8 10

1912.	No of Loads	£ s d
Nightsoil	4,663	942 15 5
Dry Ashes	5,477	1096 4 1
Waste Paper	106	26 10 6
Slaughter-house Refuse	319	45 9 8
Total	10,565	£2110 19 8

RETURN SHOWING NUMBER OF LOADS OF NIGHT-SOIL, DRY ASHES, &c., REMOVED DURING THE YEAR ENDED 31st DECEMBER, 1913.—ALSO THE COST OF REMOVAL OF THE SAME.

	No. of Loads removed.	Wages.			Carting.			Total.			
		£	s	d	£	s	d	£	s	d	
Nightsoil	3718	385	0	2	400	3	0	785	3	2	
Dry Ashes	4981	336	8	11	709	0	0	1045	8	11	
Slaughter-house Re-fuse	309		...		43	15	9	43	15	9	
Waste Paper	95		9	6	4	15	0	6	24	6	10
Swilling after Night-soiling .....	...	15	4	4		...		15	4	4
	9103	745	19	9	1167	19	3	1913	19	0	

PROVISION OF SUITABLE DUST BINS.

I am not satisfied that the present dry dust bins are in a large number of cases either suitable in shape, size or position. Great sanitary evils will arise and disease will be spread and originated unless this question of suitable dust bins is firmly and adequately dealt with.

The appliances and conditions of storage on private premises by the householders, and the appliances and method of collection by the local authority ought to be considered together.

The conditions under which the refuse is stored ought to be such as will not only ensure perfect sanitation, but also encourage and facilitate tidiness and order. The mere provision of "a sufficient receptacle for ashes" is inadequate and can only lead to grave sanitary defects. No town should be placed at the mercy of parsimonious owners and builders who, taking advantage of the lack of regulations, supply only the cheapest rubbish and not even that if it can be avoided.

I set out very fully in my last annual report, details of the type of dust bin which would be readily applicable to most houses and which the Sanitary Authority should standardise by regulation or bye-law.

THE PRIVY MIDDEN.

Year.	No. of Privy- Closets.	No. of Waste-water Closets	No. of Clean-water C'osets.
1897	4,319	269	674
1898	4,157	301	710
1899	3,942	309	815
1900	3,662	309	940
1901	3,825	309	1,038
1902	3,705	309	1,206
1903	3,5 9	309	1,376
1904	3,397	309	1,628
1905	3,222	309	1,838
1906	3,053	309	2,052
1907	2,628	309	2,636
1908	2,334	309	2,914
1909	2,112	309	3,195
1910	1,973	309	3,433
1911	1,68 /	303	3,854
1912	1,371	302	4,320
1913	946	300	4,826

Year.	Conversions.
1913	425
1912	316
1911	286
1910	139
1909	22 /
1908	294
1907	425
1906	169
1905	165
1904	183
1903	136
1902	120

I am very pleased indeed to be able to chronicle the disappearance of 425 more of these sanitary abominations, and I trust that with the immediate prospect of an improved water supply, the work may go on even more quickly.

During the last ten years about 3,000 of these privies have been swept away and at the same time our death-rates, infantile mortality rates, diarrhoea and typhoid fever death-rates, have markedly improved.

STREET SEWERING.

The abolition of the privy midden requires that the streets should be possessed of sewers capable of dealing with water carried excrement, consequently any delay in getting the town properly sewered is a hindrance to the growth of sanitation. I am pleased to report that good progress is being made in sewerage and submit the following list of streets sewered, &c., during the year for which I am indebted to the Borough Surveyor.

LIST OF STREETS SEWERED DURING THE YEAR,

1913.

1. Mill Street.
2. Waterloo Street.
3. Black Road.
4. Lord Street.
5. Gunco Lane.
6. London Road.
7. Canton Street.
8. Leigh Street (in hand).
9. Walker Street.
10. Riseley Street (part).
11. Broken Banks (part).
12. Justice Street (part).

LIST OF STREETS LIKELY TO BE SEWERED

DURING THE YEAR 1914.

1. Peter Street.
2. Loney Street.
3. Bond Street connecting sewer.
4. Richmond Hill (in hand).
5. Oxford Road extension (in hand).
6. North Street (in hand).
7. Coronation Street, surface water sewer.
8. Blakelow Road surface water sewer.
9. Shaw Street.

NEW DWELLING HOUSES.

The Corporation have approved of 36 plans for new dwelling-houses. The accommodation in the houses provided for from 6 to 10 rooms, so that none were of a class suitable for working-class dwellings.

Year.	No. of New dwelling-houses.
1900	43
1901	27
1902	13
1903	34
1904	43
1905	35
1906	30
1907	13
1908	12
1909	16
1910	42
1911	49
1912	74
1913	36

I append the Special Report under the Factory and Workshops Act, the Local Government Board Tables, the Tabular Summary of Sanitary Work—asked for by the County Medical Officer of Health and our Sanitary Inspector's Report.

I have the honour to remain, Gentlemen,

Your obedient Servant,

JOHN HEDLEY MARSH,

Medical Officer of Health.

Inspector of Nuisances Annual Report.

HEALTH OFFICE,

TOWN HALL,

MACCLESFIELD.

MR. CHAIRMAN AND GENTLEMEN,

I most respectfully beg to submit my Annual Report giving a curtailed account of work done in the department during the year ending 31st December, 1913.

Nuisances.—619 nuisances have been dealt with, out of which 540 have been satisfactorily abated and the remaining 79 are being followed up. There were 113 complaints lodged at the office either personally or by letter all of which were duly investigated and dealt with.

To achieve the above, 657 letters or preliminary notices were sent, 225 Statutory Notices and one person summoned before the Magistrates and an Order obtained.

Conversion of Closets.—425 privy closets were converted to water closets with dry ashplaces provided with a sufficient number of galvanised iron bins for containing the house refuse for one week, and 79 new water closets were erected.

This is the largest number of conversions that has been effected in any one year since the old privy with its festering midden was attacked, and I am pleased to think that in a short time we shall see the end of these undesirable places, except at a few isolated dwellings in the suburbs of the Borough where there are no sewers.

204 other nuisances of variable kinds have been dealt with ranging from the bed of the river to the factory chimney top.

Considerable difficulty is experienced in getting horse and cow keepers to remove the manure arising therefrom as frequently from the populous parts of the town as the law requires them to do, viz., every 14 days.

House Drainage.—307 House drains have either been relaid, or repaired and cleansed, and 4 slopstone pipes which were found to be directly connected with the sewer were disconnected. These entailed 387 visits of inspection. 51 house drains were tested with the smoke test.

Smoke Nuisances.—Black smoke seems to be somewhat on the increase.

Five persons have been written to without any apparent good results, and I fear that it will be necessary to show a more determined disposition in the matter.

Marine Stores.—These places are amongst the most vexatious a Sanitary Inspector has to deal with and need the constant eye of supervision.

A slight improvement has been achieved by compelling several of them to remove their filthy accumulations at very short intervals to a field outside the town.

Offensive Trades.—The Authority had to call on one offensive trader to discontinue his business on account of its close proximity to dwelling-houses.

Common Lodging-houses.—These are practically the same as last year.

44,531 persons have been accommodated during the year. Yet whilst these figures are as accurate as can be obtained from the weekly reports they are liable to be misunderstood as one person staying several nights would be counted just as many times as he stayed nights.

The above houses are very unsatisfactory and it would be a charity for some philanthropic person to present a good commodious Model Lodging-house to the town.

Slaughter Houses.—As I mentioned last year I consider the accommodation inadequate, but the butchers endeavour to make the best of what they have by keeping them clean and carrying out any suggestion that is made to them.

The careasses of five well fatted beasts suffering with Tuberculosis have been submitted for inspection and surrendered.

Dairies, Cowsheds and Milkshops Order.—These places are practically the same as when I reported on them last. The only change with the exception of a few changes of tenancy being deterioration and as I have before mentioned a class of crofters or small holders is springing up that has neither knowledge of the business or the law relating to it or capital to carry it out.

They get a cow and a croft, stick up a totally unsuitable shed and then start supplying milk to their neighbours and relations, without making application to be registered (which the Dairies, Cowsheds and Milkshops Order permits). This goes on for a year or two, the shcd loses its newness, the soil with manure is trodden up and filthy, no drainage, no water supply in most cases, except what is carried from the tap at their own cottage, and the whole presents a dirty, bad appearance, and yet to put your foot on and stamp out these places (if you really have the power) seems hard, and to get them up to a standard of cleanliness and a reasonable sanitary condition is a hopeless task.

Bake-houses.—These places have been visited from time to time and attention called to any apparent non observance of the Act which has readily been set right. With few exceptions the places in use have served their day and considerably more than one generation and it would be better, if, by better accommodation being provided, they became obsolete.

Sale of Food and Drugs Act.—89 Samples were submitted to the Public Analyst, viz. :—19 of Milk, 2 of Cream, 17 of Butter, 8 of Lard, 4 of Cheese, 3 of Coffee, 2 of Flour, 7 of White Pepper, 7 of Ground Ginger, 6 of Ground Rice, 5 of Arrowroot, 3 of Linseed Meal, 2 of Turpentine, 1 of Tincture of Iodine, 1 of Carbonate of Soda, 1 of Bicarbonate of Potash, and 1 of Gin

Two persons were summoned before the Justices, one for adulterated milk which was let off on payment of costs; and the other for selling gin below the standard mentioned in the Act of Parliament, viz. :—35 U.P. which was dismissed, the Justices being of opinion that a three-quarter inch label with U.P. 50., stuck on the bottle it was delivered in, complied with the requirements of the Act.

Shop Acts.—These Acts having come in full force have brought with them quite a shower of trade jealousy and complaining.

Several persons were reported to the Committee for infringements when the Acts came into force at first which were let off with a caution, but it was found necessary to summons four persons for keeping their shops open after the hour stated in a Shops Closing Order affecting their trade or business, all of which were fined a small fine and costs.

As regards that part of the Acts relating to Shop Assistants it is fairly clear, but the part relating to mixed shops and hotels is very perplexing and difficult to put into force so much being left undefined.

Canal Boats Act.—13 boats were inspected, and 1 infringement, a dilapidated boat, was met with, which I found was already being dealt with by a neighbouring Authority.

It was found necessary to summons one boat owner for neglecting to comply with a Notice served on him during the end of 1912, and he was fined 20/- and costs.

Contagious Diseases Animals Acts.—One case of Parasitic Mange was reported, and twelve beasts were slaughtered under the Tuberculosis Order of 1913, two with indurated udders, eight with tuberculosis with emaciation, one with tuberculosis not being advanced, and one was found not to be suffering from tuberculosis.

Five licenses were issued for the removal of swine and 214 were received principally with fat swine which had to be killed within eight days.

Factory and Workshops Acts.—19 complaints have been received from the Factory Inspectors relating to closet accommodation in factories. One being insufficient, sixteen unsuitable or defective, principally that the doors had not an intervening ventilated space around them, and two that the entrances were not sufficiently separated for the sexes.

These were all visited and reported upon to your Committee, and where it was practically possible to carry out the alteration the responsible persons were written to and the work carried out.

Five lists of outworkers have been received and three notices of occupation.

Ten outworkers premises were visited and caused to whitewash.

Scavenging.—I am pleased to say that the work has been carried on with a minimum of complaints, and I found some complaints exaggerated.

There has been 3,718 loads of nightsoil, 4,918 loads of dry ashes, 309 loads of slaughter-house refuse, and 95 loads of waste paper removed during the year, a total of 9,103, at a total cost of £1,913 19s. 0d. or 4s. 2½d. per load.

We have now discontinued the collection of waste paper it having been taken over by the Salvation Army.

Food submitted for inspection and destroyed, in addition to the five fat carcasses mentioned under the heading of slaughter-houses, were ten pecks of over kept damsons, two hampers of young potatoes, 4 cwt. of ordinary potatoes, a barrel of codfish, and a hen.

I remain, Gentlemen,

Your obedient Servant,

WILLIAM JENKINS.

HEALTH OFFICE,
TOWN HALL,
MACCLESFIELD.
SANITARY DEPARTMENT.

I beg respectfully to submit to you the following as a summary of work done by this department during the year ending 31st December, 1913.

Number of Complaints received at Office	113
,, Nuisances entered on the Books	619
,, Nuisances removed	540
,, Preliminary notices and letters	657
,, Statutory notices served	225
,, Magistrates orders obtained	2
,, Persons summoned before the Justices for offences under the Public Health Act	2
,, Privies converted into water closets	425
,, on W.C. system	79
,, New Closets built... { on Waste Water system ...	0
,, on privy system	0
,, House drains repaired and cleansed	307
,, Slopstone pipes disconnected from the sewer	4
,, House drains tested with smoke apparatus.....	51
,, other nuisances (not specified above) abated	204
,, Visits paid to Common Lodging Houses	468
,, Nightly lodgers accommodated at the Common Lod- ing Houses during the year	44,531
,, Visits paid to Factories and Workshops	193
,, ,, Dairies, Cowsheds and Milkshops ...	112
,, ,, Registered Slaughter Houses	150
,, ,, Bakehouses	62
,, ,, Tripe dressing places	24
,, ,, Dirty and overcrowded houses	156
,, Houses of Outworkers inspected	10

Parasitic Mange	1
Tuberculosis	12
Number of persons proceeded against for offences under the Contagious Diseases Animals Acts	2
,, Licenses granted for the removal of swine	5
,, Licenses received to admit swine	214
,, cases of diseased, unsound or unwholesome food seized and destroyed by Magistrates Order ...	1
,, Persons proceeded against for same	1
,, complaints received under the Factory and Workshops Acts	19
,, visits paid to outworkers premises	10
,, visits paid to Factory and Workshops	93

I remain, Gentlemen,

Your obedient Servant,

WILLIAM JENKINS.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

(Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances).

Premises.	No. of Inspections.	No. of Written Notices.	No. of Prosecutions.
Factories (Including Factory Laundries)	51 ...	17 ...	1
Workshops (Including Workshop Laundries)	11 ...	2 ...	—
Workplaces (Other than Outworkers' premises included in Part 3 of this Report).....	15 ...	0 ...	0
Total	77 ...	19 ...	1

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars.	Found.	Remedied.	No. of Defects.
Nuisances under the Public Health Acts :			
Want of cleanliness	0	0	0
Want of ventilation.....	0	0	0
Sanitary accommodation :			
Insufficient	1	1	1
Unsuitable or defective	16	16	16
Not separate for sexes	2	2	2
Offences under the Factory and Workshops Act :			
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	2	0	0
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	0	0	0
Total	21	19	19

3.—HOME WORK.

OUTWORKERS' LISTS, SECTION 107.

Sending once in the year.
Outworkers.

	Lists.	Contractors.	Workmen.
Wearing Apparel—			
(1) Making, &c.	5	...	5 ... 37
Furniture and Upholstery	0	...	0 ... 0
Totals	5	...	5 ... 37

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.

	No.
Bread Bakers	25
Confectioners	15
Dressmakers	29
Milliners	17
Tailors	15
Silk Weavers	8
Clog Makers	6
Tin-plate Workers	6
Cabinet Makers	6
Brush Makers	4
Boot Makers	12
Stone Masons	3
Saddlers	3
Bottling	2
Boxmaking	2
Carriage Building	2
Joiners Shops	2
Knitting	2
Skipmaking	2
Wheelwrights	3
Builders Shops	1
Copper Smiths	2
Cycle Repairers	2
Marine Stores	3
Paper Stock	1
Rope Makers	1
Card Cutting	4
Machine and Shoeing Smiths	1
Mechanical Engineer	1
Hand Laundry	1
Buckram Making	1

5.—OTHER MATTERS.

Class.	Number.
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Act (s. 5) :—	
Notified by H.M. Inspector	19
Reports (of action taken) sent to H.M. Inspector.....	19
Underground bakehouses in use at the end of the year.....	2

TABLE I. Name of District, Macclesfield. For whole District.

Population estimated to middle of each Year.	Births.	Deaths under 1 Year of age.		Deaths of all Ages. Total.		Deaths in Public Institutions	Deaths of Non-residents registered in district	Deaths of residents registered beyond District	Deaths of all ages Nett.	
		Number	Rate*	Number	Rate*				Number	Rate*
1891	36009	1009	28.1	130	22.6	816	132	67	749	20.8
1892	36009	989	27.4	203	27.3	986	156	31	905	25.1
1893	36009	831	25.9	177	23.4	845	191	101	744	20.6
1894	36009	1017	28.2	136	20.3	732	160	89	643	17.6
1895	36009	917	25.4	189	25.2	908	182	95	813	22.5
1896	36009	964	26.8	150	20.3	732	150	67	665	19.4
1897	36009	977	27.1	171	22.9	825	179	93	734	20.3
1898	36006	953	26.1	166	21.0	787	151	88	670	18.6
1899	36009	886	24.6	174	22.5	810	188	73	737	20.4
1900	36009	853	23.6	163	21.4	772	160	66	709	19.7
Averages for years 1891-1900		939	26.2	165	22.6	821	164	77	736	20.5
1901	34624	771	22.2	139	20.8	720	176	77	643	18.5
1902	34624	842	21.4	76	17.2	597	175	72	525	15.1
1903	34624	870	25.1	117	19.4	134	204	91	601	17.3
1904	34624	784	22.6	140	23.0	178	222	74	707	20.0
1905	34624	751	21.6	112	20.7	149	798	91	628	18.1
1906	34624	762	22.0	93	22.7	122	664	88	591	17.0
1907	34624	704	20.3	85	19.6	120	680	210	580	16.8
1908	34624	737	21.2	94	19.4	127	675	204	576	16.0
1909	34624	722	20.8	80	19.0	110	668	100	544	15.7
1910	34624	686	19.8	71	17.5	103	607	124	492	14.2
1911	34624	701	20.8	106	18.9	151	649	115	557	16.5
1912	34624	678	20.1	77	115	115	671	105	536	15.9
1913	33639	696	20.6	79	18.0	113	628	5	514	15.2

Note.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term of "Non Residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and the term "Residents," is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public Institutions" to be taken into account for the purpose of these tables, are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses, and lunatic asylums. A list of the institutions in respect of deaths in which corrections have been made, should be given on the back of this table.

Area of District in acres.....	3,214	Total population at all ages	33,639 (Corrected population).
(exclusive of area covered by water)		Number of inhabited houses	8,436 At Census of 1911.
		Average number of persons per house	3.9

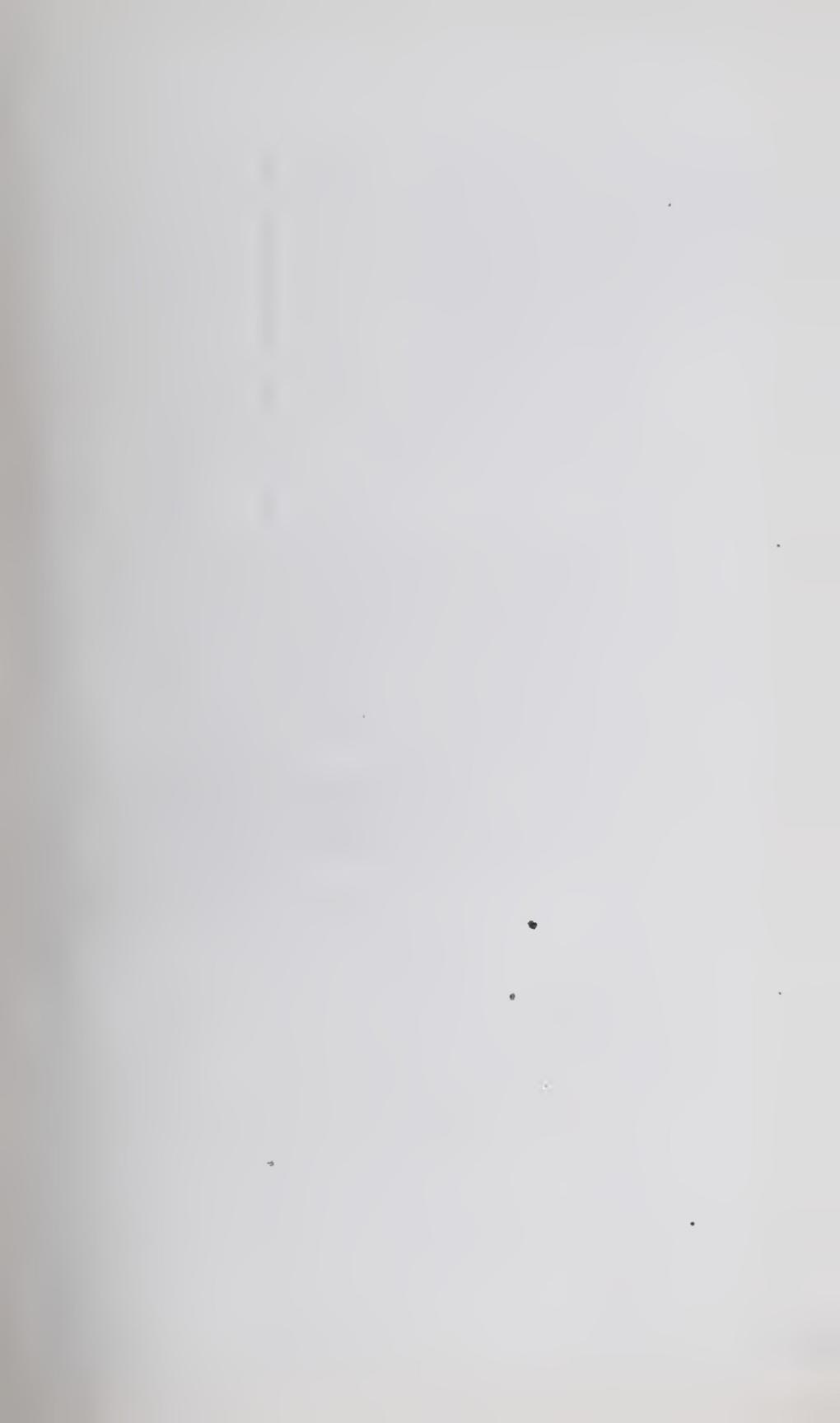


TABLE II.
Cases of Infectious Disease notified during the year 1913.
District Macclesfield.

TABLE III.

CAUSES OF, AND AGES AT DEATH DURING THE YEAR, 1913.

Borough of Macclesfield.

Nett Deaths at the subjoined ages of "Residents," whether occurring within or without the District (a).

CAUSES OF DEATH.	All ages.	Under 1 yr.	1 and under 2 yrs.	2 and under 5 yrs.	5 and under 15 yrs.	15 and under 25 yrs.	25 and under 45 yrs.	45 and under 65 yrs.	45 and over 65 yrs.	65 and upwards.	Total Deaths whether of Residents or Non- Residents in Institutions District No.)
1	2	3	4	5	6	7	8	9	10	11	2
Enteric Fever	1	...	...	1	...	1	...	...	...	...	...
Measles	1	...	2	...	4	...	2	...	...	...	6
Scarlet Fever	9	...	3	...	4	...	1	...	...	...	...
Whooping Cough	7	...	...	...	2	...	1	...	...	...	3
Diphtheria and Croup	3	...	...	...	...	...	...	...	1	...	1
Influenza	2	...	...	...	...	...	...	...	1	...	...
Phthisis (Pulmonary Tuberculosis)	32	...	2	...	1	...	4	...	13	...	24
Tuberculous Meningitis	6	...	1	...	1	...	2	...	1	...	2
Other Tuberculous Diseases	7	...	1	...	1	...	2	...	1	...	1
Cancer, malignant disease	40	...	...	...	...	...	1	...	21	...	12
Rheumatic Fever	1	...	1	...	3	...	1	...	...	...	...
Meningitis	5	...	...	3	...	1	...	1	...	...	1
Organic Heart Disease	78	...	...	...	...	1	...	2	...	10	...
Bronchitis	31	...	1	...	4	...	2	...	1	...	33
Pneumonia (all forms)	27	...	4	...	4	...	3	...	3	...	57
Diarrhoea and Enteritis	11	...	8	...	1	...	1	...	1	...	13
Appendicitis & Typhlitis	3	...	...	...	1	...	1	...	1	...	2
Cirrhosis of Liver	6	...	...	...	...	...	...	2	...	1	...
Alcoholism	2	...	...	...	...	...	...	1	...	1	...
Nephritis & Bright's Disease	19	...	...	...	...	...	1	...	2	...	8
Other accidents & diseases of Pregnancy & Parturition	6	...	2	...	...	...	1	...	2	...	1
Congenital Debility & Malformation, including Prema-ture Birth	23	...	23	...	...	...	...	...	...	...	2
Violent Deaths, excluding Suicides	11	...	26	...	1	...	2	...	3	...	9
Other Defined Diseases	174	...	26	...	2	...	4	...	8	...	81
Diseases ill-defined or un-known	9	...	6	...	...	...	1	...	1	...	1
Totals	514	...	79	...	17	...	14	...	21	...	231

TABLE IV. MACCLESFIELD BOROUGH.

INFANT MORTALITY.

1913. Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSES OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under & under 4 weeks.	4 weeks.	3 mths.	6 mths.	9 mths.	Total Deaths under 1 Y
Scarlet Fever .....	...	...	...	...	...	...	1	...	...	2
Whooping Cough .....	...	...	...	...	...	2	...	1	...	3
Tuberculous Meningitis .....	...	...	...	...	...	1	...	1	...	1
Abdominal Tuberculosis .....	...	...	...	...	...	1	...	...	...	2
Convulsions	3	...	1	...	5	2	...	1	...	8
Bronchitis.....	...	...	...	...	...	...	1	...	...	1
Pneumonia (all forms) .....	...	...	1	...	1	...	1	...	2	4
Diarrhoea .....	...	...	...	1	...	1	...	1	...	4
Enteritis .....	...	...	...	...	1	...	1	...	2	6
Gastritis .....	...	1	...	...	...	1	...	2	...	3
Syphilis .....	...	...	...	...	...	4	...	2	...	7
Injury at birth	2	...	...	...	2	...	...	2	...	2
Congenital Malformations	2	...	2	...	2	...	...	2	...	2
Premature birth	10	...	2	...	1	...	13	...	2	15
Atrophy, Debility & Marasmus	2	...	1	...	1	...	3	...	2	7
Other Causes	2	...	1	...	3	...	7	...	2	13
Totals	21	...	5	...	4	...	5	...	14	79
					35	...	19	...	8	4
										79

Nett Births in the year :—legitimate 650 ; illegitimate 51.

THE SALE OF FOOD AND DRUGS ACT, 1875.
THE SALE OF FOOD AND DRUGS ACT AMENDMENT ACT, 1879

Report of the Public Analyst appointed for the Borough of Macclesfield, upon the Articles analysed by him under the above Acts during the Quarter ending the 31st day of December, 1913.

Article submitted for Analysis.	Result of Analysis : Showing whether the sample was Genuine or adulterated, and if Adulterated, what were the nature and extent of the Adulteration.	The sum paid in respect of the Analysis.		Observations.
Milk	3	Genuine Formal		
Cream	2	Genuine Informal		
Butter	5	do.		
Lard	6	do.		
Coffee	3	do.		
Flour	2	submitted by an Officer, acting under directions of the Corporation of Macclesfield.		
Pepper	2	do.		
Ground Rice	3	do.		
Cheese	2	do.		
Ground Ginger	2	do.		
Linseed Meal	1	do.		
Carbonate Soda	1	do.		
Bi-carbonate Potash	1	do.		
Total Number of Samples analysed during the Quarter, 33.				Number of Samples adulterated, Nil.
				(Signed) C. ESTCOURT, F.I.C., Public Analyst.
				6th January, 1914.

CHESHIRE COUNTY COUNCIL.

TABULAR SUMMARY OF SANITARY WORK DURING
1913.

MACCLESFIELD BOROUGH.

I. Adoptive Acts.

Have any of the undernamed Acts been adopted by your Council during 1913?—All previously adopted, see below:—

1. Infectious Diseases Prevention Act—as and from 1st May, 1891.
2. Notification of Births Act—as and from April 1908.
3. Public Health Acts (Amendment) Act, 1907—as from 12th October, 1910.
(State Sections in force)—15 to 23, 26 to 33; Part III., Sections 52 to 66 and 68; Parts V. and VI., Sections 79 to 81, 84 and 85, and Part VIII.
4. Other Adoptive Acts:—The Public Health Acts (Amendment) Act, 1890, Part 2 and 3, as and from 1st May, 1891.

II. Bye-Laws and Regulations.

State subject matter of any new Bye-laws or Regulations brought into force during 1913. A copy of any new Bye-laws or Regulations would be acceptable.

III. Milk Supply.

1. Number of Registered Premises at close of 1913:—

	Number inspected	during 1913.
--	------------------	--------------

(a) Dairies	1	...	4
(b) Cowsheds	46	...	87
(c) Milkshops	7	...	21

2. Number of Notices served for non-compliance with Regulations 7.
3. Number of Legal Actions taken for non-compliance with Notices, &c.:—None.

IV. Food Inspection.

1. Is this systematically carried out in your District ?—Yes.
2. Number of Slaughterhouses in your District (a) Public :—None.
(b) Private :—18.
3. Number of inspections made of Slaughterhouses during 1913
(a) Public 0
(b) Private 150
4. Are systematic inspections made of premises other than Slaughterhouses where food is produced or sold ? If so, please state generally nature of premises so inspected.—Yes. Sausage skin cleaning and preparing, Sausage and Black Pudding making, Oat Cake and Pikelet making, and Fish and Game and Poultry Shops.

V. Water Supply.

1. Have any extensions been carried out during 1913 ? If so please append brief note.—None.
2. Number of Samples analysed during 1913.—Three.
3. **Are any, and if so what, parts of your district still without a proper supply ?**—Only small portions at higher level than service reservoir.

VI. Pollution of Rivers and Streams.

In your opinion are any Rivers or Streams in your District polluted, or likely to be polluted at times, by any of the following ? :

Source of Pollution.	River of Stream concerned.
(a) Private Sewage Disposal Works	(b) The River Bollin, from Mr. W. Whiston's Dye Works at Langley above the Borough.
(c) Solid matter (accumulations of cinders, refuse, sludge, &c.)	(c) The River Bollin, from the village of Langley above the Borough.
(d) House Drainage	(d) Do. do.
(e) Manufacturing waste or effluents	(e) Dye water from Mr. Whiston's works.

VII. Sewerage and Sewage Disposal.

1. Specify any new works of sewerage carried out during 1913.—
New sewers laid in London Road, Justice Street, Riseley Street, Walker Street, Lord Street, Leigh Street and Part of Black Road and Gunco Lane.
2. Are any, and if so what, parts of your district still without a proper system of sewers?—Peter Street, Loney Street, Bond Street, connecting sewer, and Richmond Hill in hand.
3. By what system is sewage disposed of?—Detritus Tanks, Septic Tanks, and Bacteriological treatment by continuous filtration at Outfall Works, Butley, near Prestbury.
4. Have there been any complaints to your knowledge during 1913 as to the disposal works?—Yes. By the Mersey and Irwell, Rivers Pollution Board.
5. Have any alterations or extensions taken place to your knowledge in the disposal works during 1913?—None.

VIII. Scavenging.

1. By whom is this carried out?—By the Health Committee of the Corporation.
2. Approximate number of the following in your district:—

	How frequently
	Scavenged.
(a) Midden-privies	950 Every three months.
(b) Dry Ashbins	Practically None.
(c) Pail Closets.....	About a score Every week.
(d) Dustbins	5000 Do.
(e) Cesspools.....	About a dozen Every three months.
3. Is the present system in your opinion inadequate in any respect?—No.

IX. Housing.

1. Number of new houses built during 1913.—42.
2. Number of dwelling-houses inspected under s. 17 Act of 1909.—1,006.

3. Number of such houses considered unfit for habitation.—9.
4. Number of representations made to Local Authority.—1.
5. Number of closing orders made by Local Authority.—2.
6. Number of houses where defects remedied without closing orders being made.—603.
7. Number of houses where defects remedied after closing orders made.—None.
8. Estimated or ascertained number of houses **within limits of rent in s. 14 of Act of 1909**.—Estimated 5,500.
9. Number of such houses in respect of which notice was served during 1913.—714.
10. Number of such houses closed after notice.—None.
11. Number of such houses where Local Authority has executed necessary repairs, &c.—None.
12. Approximate number of back-to-back houses in district.—150.
13. Approximate number of cellar dwellings in district.—None.

XI. Prevention of Consumption.

Kindly state action taken during 1913 under following heads :—

1. Sanitary Inspection of patients' houses.—All houses visited and inspected on receipt of notification.
2. Disinfection of ditto.—Yes, on removal or death. 38 houses disinfected during 1913.
4. Action to prevent spitting.—Necessity of taking care impressed on patient.
6. Supply of disinfectant.—Disinfectants supplied gratis on application.

CHESHIRE COUNTY COUNCIL.

General Order of Local Government Board (Medical Officer of Health and Inspectors of Nuisances)
December 13th, 1910.

Tabular Statement of Inspector of Nuisances for the Year ended December 31st, 1913.

Number and Nature of Inspections made.	Number	B.		C.			
		Statutory.	Informal.	Notices complied with.	Remaining in hand.	Prosecut'ns Instituted.	
1. Dwelling-houses (general inspections)	1006	...	4	296	...	192	...
2. Cellar Dwellings	None in dist.					108	...
3. Back-to-Back Houses	43	...	0	12	...	9	...
4. Tents, Vans, Sheds, &c.	3	...	0	0	...	0	...
5. Courts, Yards, Passages	No account kept.						
6. Privy-Middens Earth or Pail Closets	503	...	105	381	...	330	...
7. Cesspools	7	...	0	7	...	2	...
8. House Drainage	387	...	62	113	...	79	...
9. Ditches, Watercourses, &c.	9	...	6	9	...	6	...
10. Offensive Accumulations	42	...	8	42	...	32	...
11. The Keeping of Animals (P.H.A., 1875, S. 91 (3))	8	...	5	8	...	6	...
12. Offensive Trades	41	...	1	14	...	10	...
13. (a) Slaughterhouses (Public)	None.					0	...
,, (Private)	150	...	1	6	...	4	...
(b) Other Places where Food is produced or sold	96	...	3	3	...	3	...
14. Piggeries	10	...	3	6	...	4	...
15. (a) Dairies	4	...	0	0	...	0	...
(b) Cowsheds	87	...	0	5	...	4	...
(c) Milkshops	21	...	0	2	...	2	...
16. (a) Factories	51	...	19	17	...	17	...
(b) Workshops	11	...	7	11	...	2	...
(c) Workplaces	15	...	4	15	...	15	...
(d) Outworkers' Premises	10	...	0	10	...	10	...
17. Bakehouses (Overground)	58	...	0	1	...	1	...
,, (Underground)	4	...	0	0	...	0	...
18. Common Lodging Houses	468	...	0	11	...	11	...
19. Houses let in Lodgings	12	...	0	0	...	0	...
20. Smoke Observations	9	...	0	5	...	1	...
21. Canal Boats	13	...	1	1	...	1	...
22. Infectious Disease Inquiries and Re-visits	1178	...	0	0	...	0	...
23. Miscellaneous. Contagious Diseases Animals	39	...	0	0	...	0	...
Totals	4285	...	229	975	...	741	...
						137	...
						6	

(Signed) WILLIAM JENKINS, Inspector of Nuisances.

